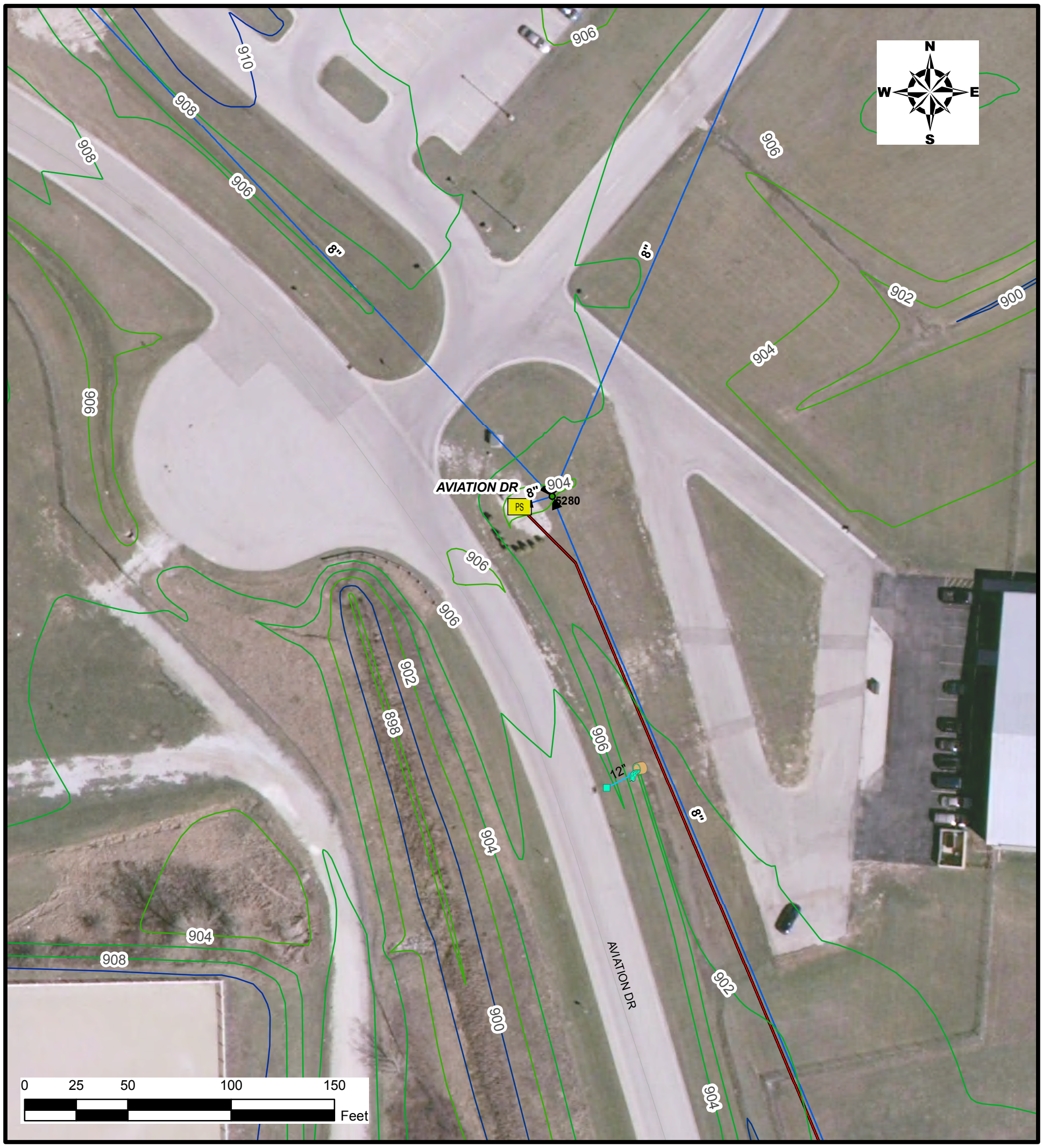
Appendix A

Pump Station Flood Protection



Flood Plain
DNRWetlands
Storm Sewer
Culvert
Open Channel
Storm Outfall
Pressurized Main
Inlet Point
Catch Basin
Storage Basin
Storm Outfall

Sanitary Lift Station

PS Public
PS Private

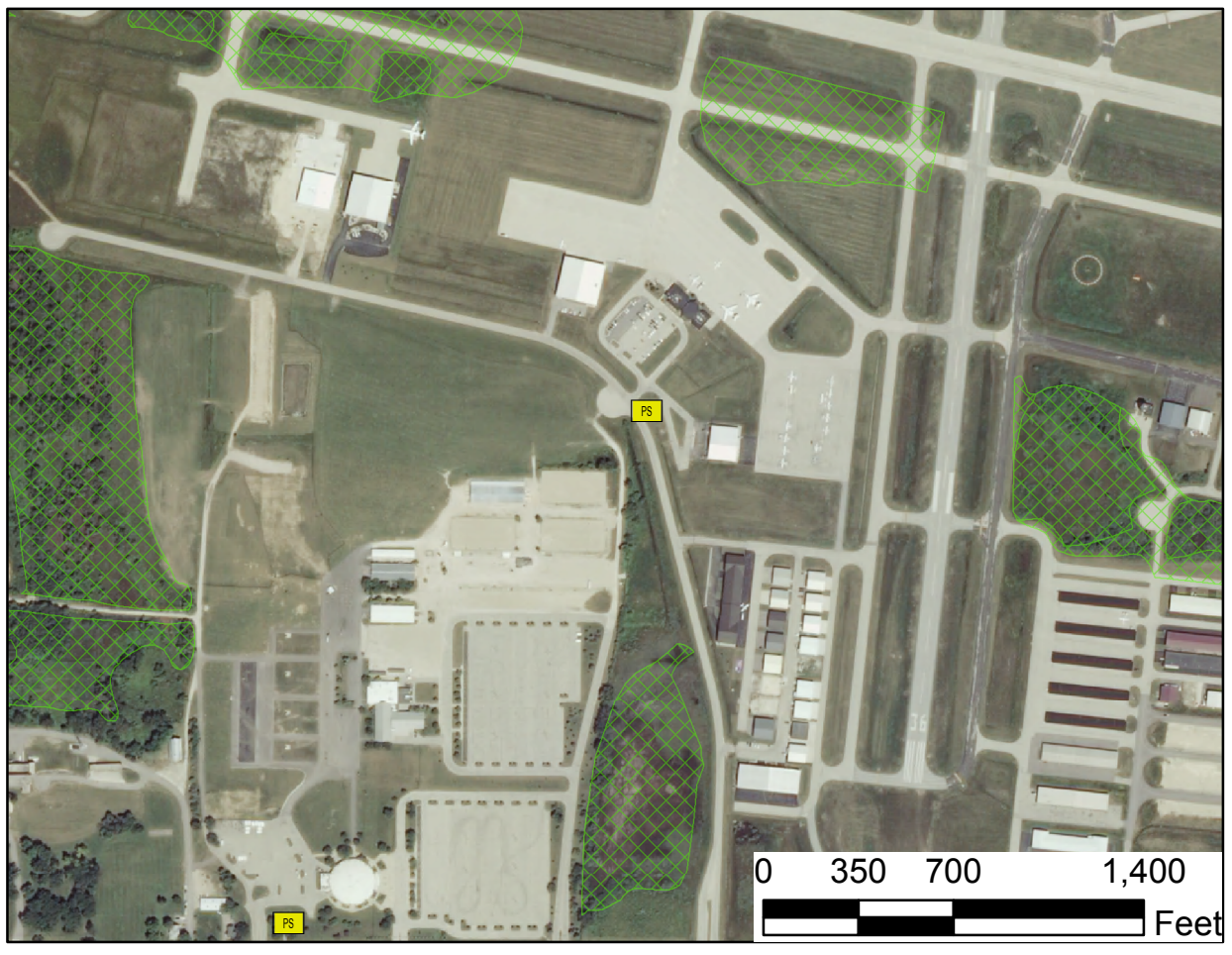
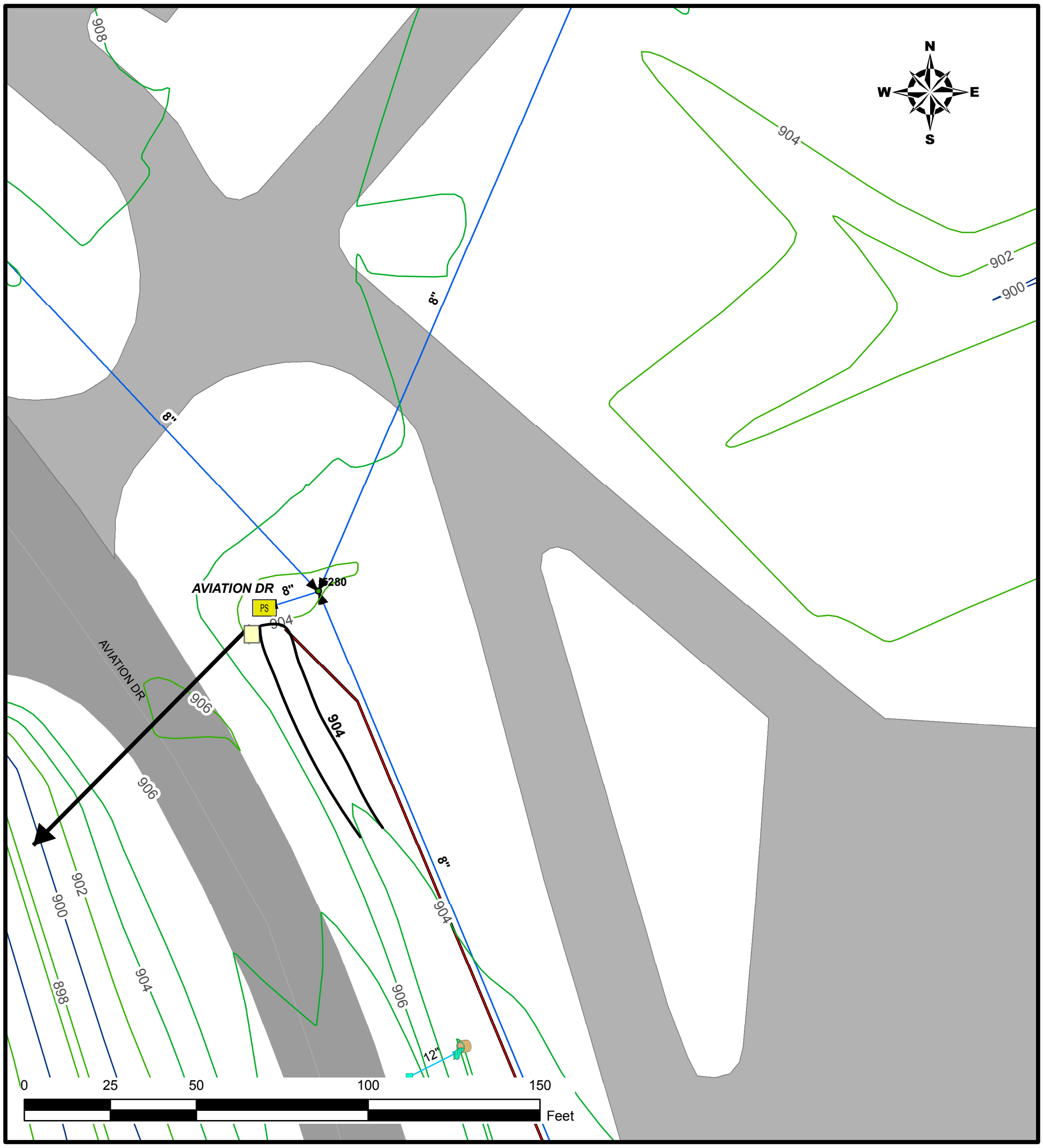


Figure 1
Existing Aviation Dr Pump Station
Waukesha, Wisconsin
May 18, 2009



LEGEND

- Flood Plain
- Buildings
- DNRWetlands
- Parcels
- Parking
- Roads
- Driveways
- WaterPoly

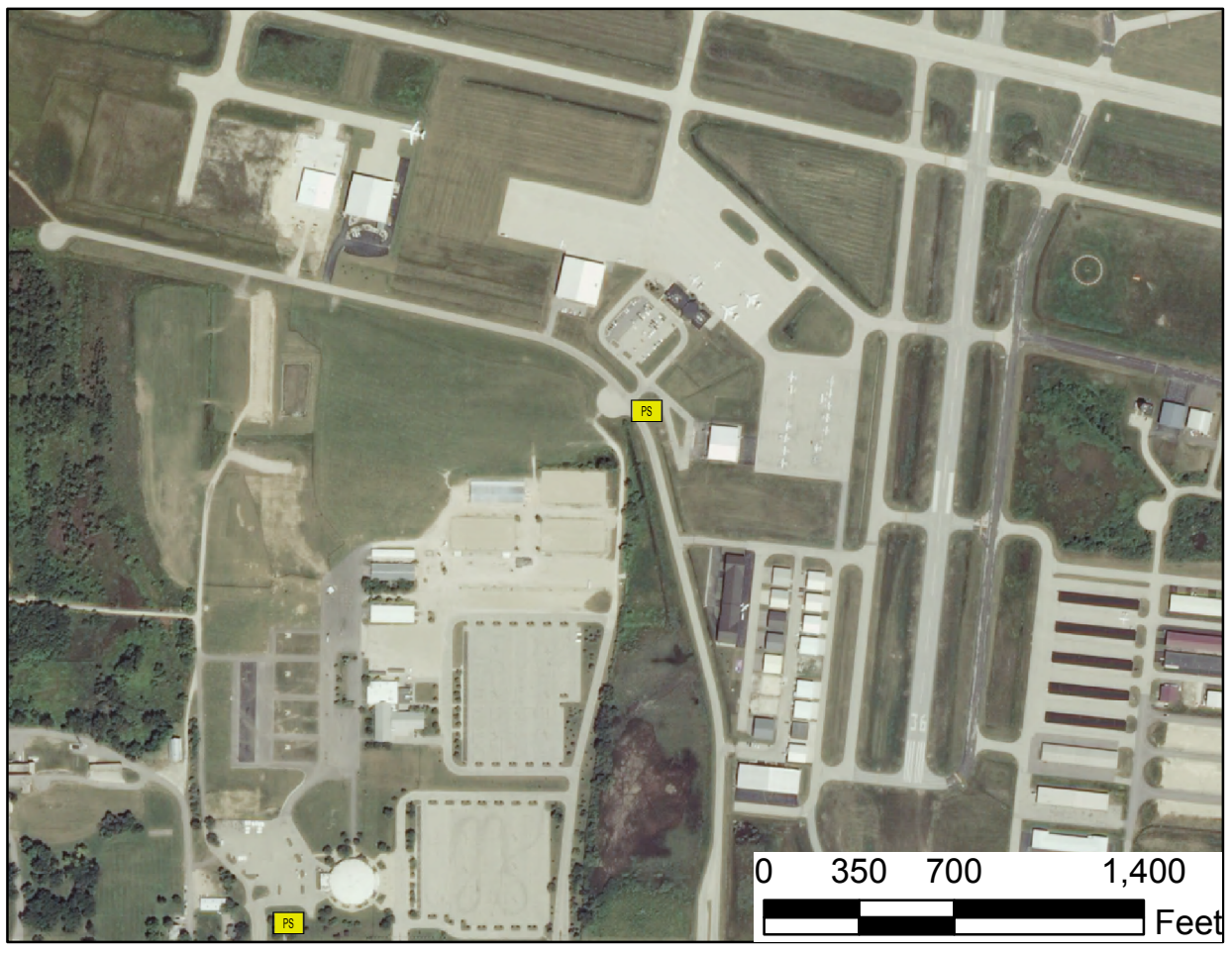


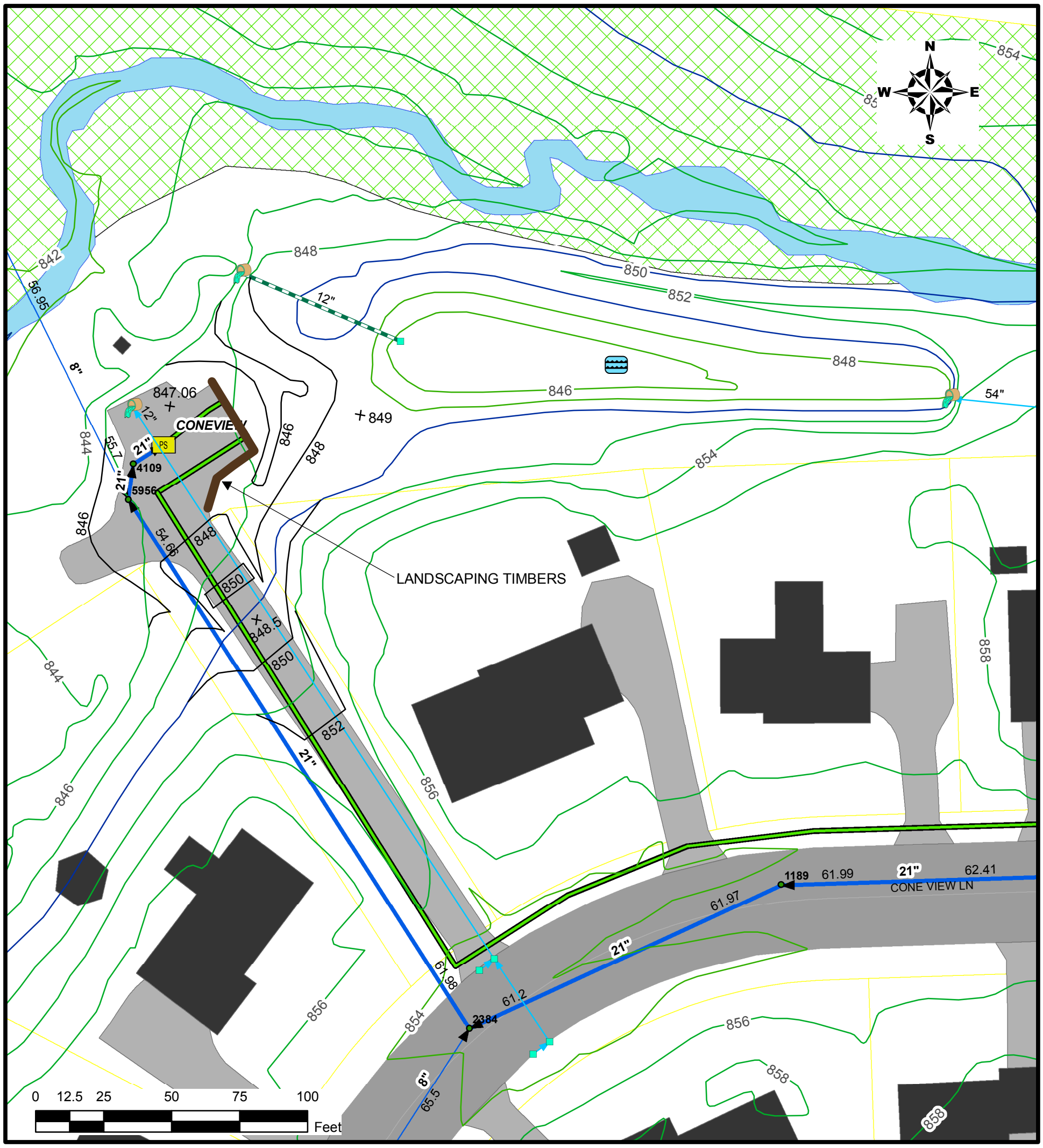
Figure 2
Proposed Aviation Dr Pump Station
Waukesha, Wisconsin
May 18, 2009

Flood Plain
DNRWetlands
Storm Sewer
Culvert
Open Channel
Storm Outfall
Pressurized Main
Inlet Point
Catch Basin
Storage Basin
Storm Outfall

Sanitary Lift Station

PS Public
PS Private

Figure 3
Existing Coneview Pump Station
Waukesha, Wisconsin
May 18, 2009

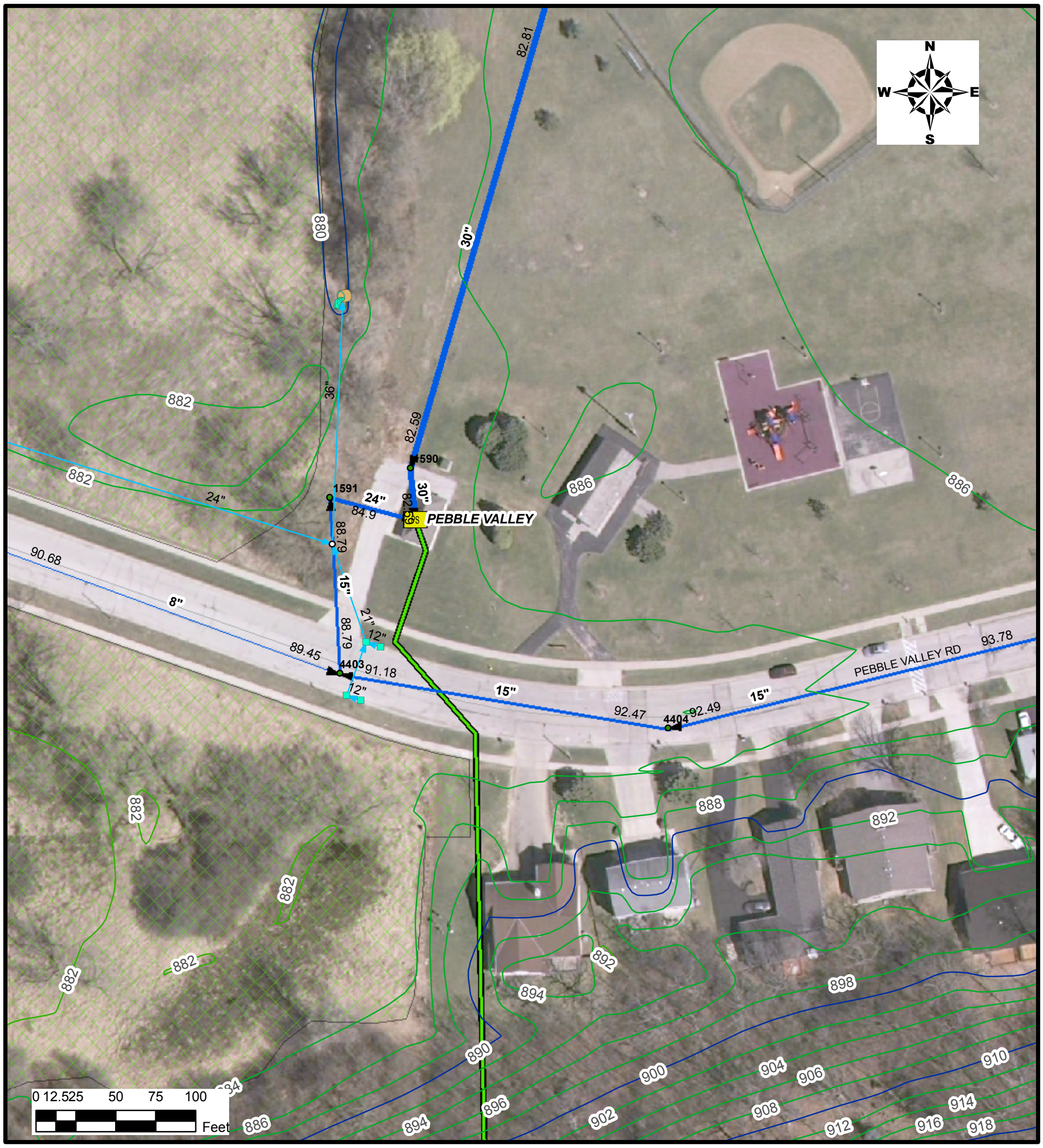


Flood Plain
DNRWetlands
Storm Sewer
Culvert
Open Channel
Storm Outfall
Pressurized Main
Inlet Point
Catch Basin
Storage Basin
Storm Outfall

Sanitary Lift Station

PS Public
PS Private

Figure 4
Proposed Coneview Pump Station
Waukesha, Wisconsin
May 18, 2009

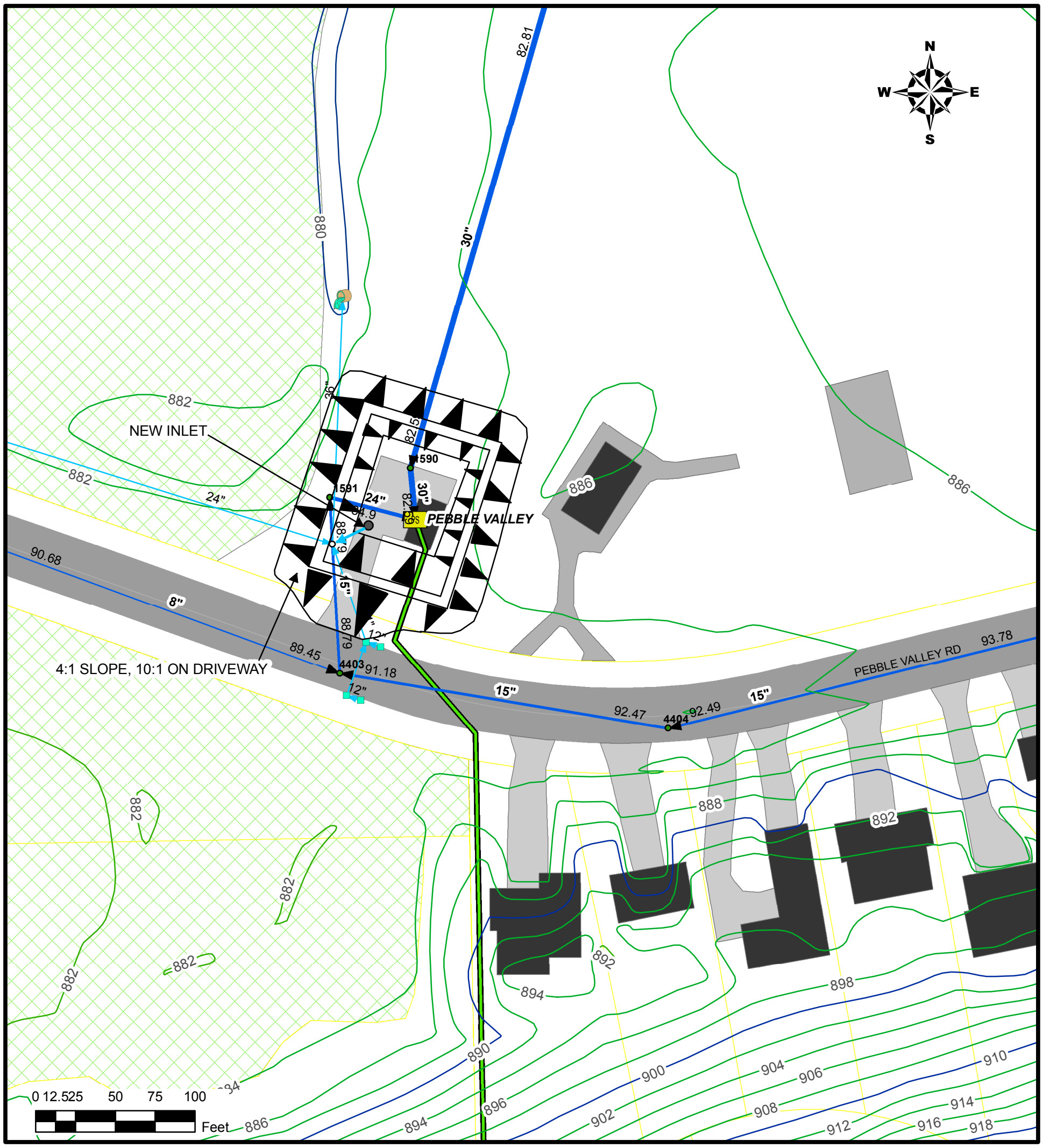


Flood Plain
DNRWetlands
Storm Sewer
Culvert
Open Channel
Storm Outfall
Pressurized Main
Inlet Point
Catch Basin
Storage Basin
Storm Outfall

Sanitary Lift Station

PS Public
PS Private

Figure 5
Existing Pebble Valley Pump Station
Waukesha, Wisconsin
May 18, 2009

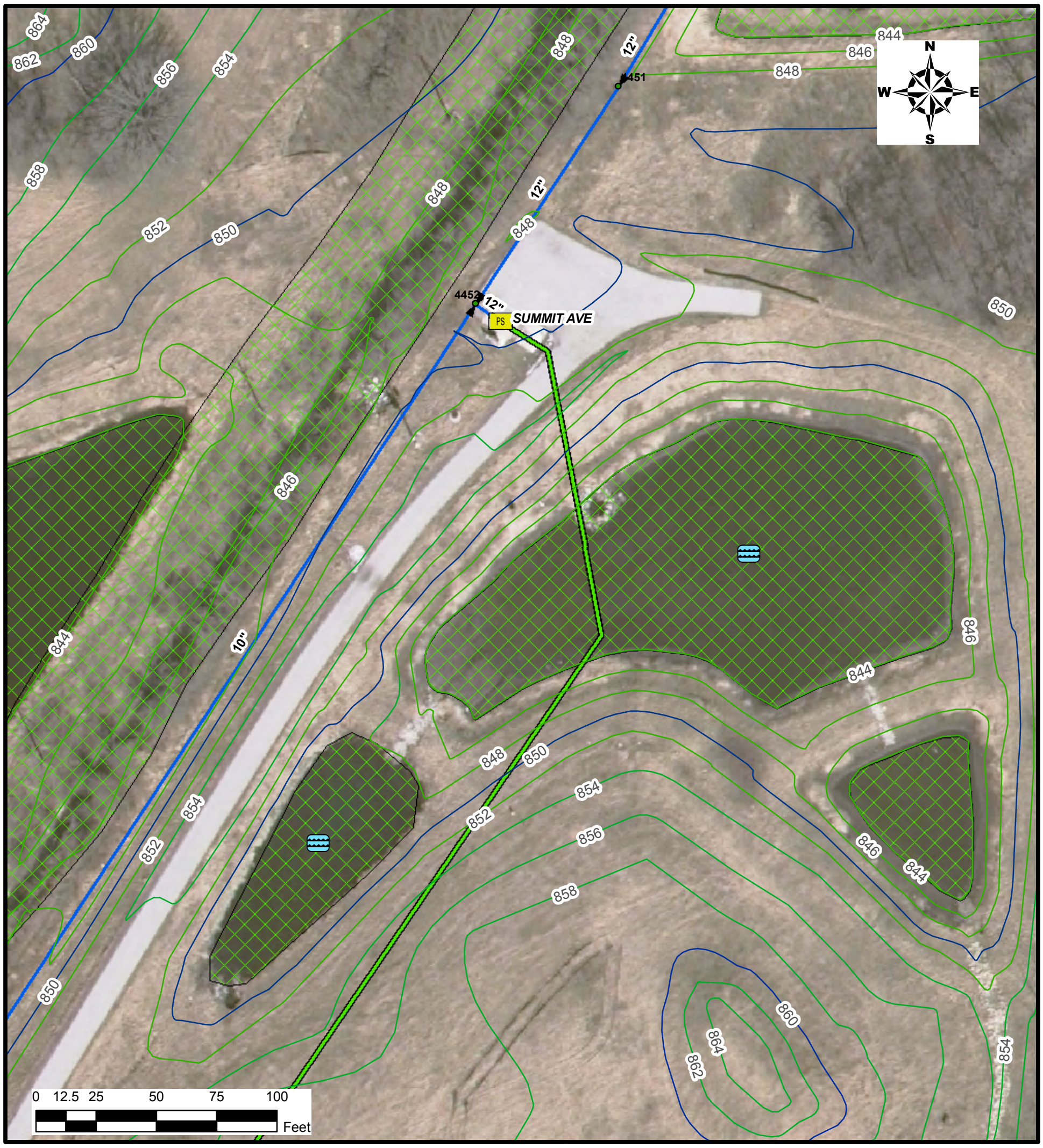


Flood Plain
DNRWetlands
Storm Sewer
Culvert
Open Channel
Storm Outfall
Pressurized Main
Inlet Point
Catch Basin
Storage Basin
Storm Outfall

Sanitary Lift Station

PS Public
PS Private

Figure 6
Proposed Pebble Valley Pump Station
Waukesha, Wisconsin
May 18, 2009



Flood Plain
DNRWetlands
Storm Sewer
Culvert
Open Channel
Storm Outfall
Pressurized Main
Inlet Point
Catch Basin
Storage Basin
Storm Outfall

Sanitary Lift Station

PS Public
PS Private

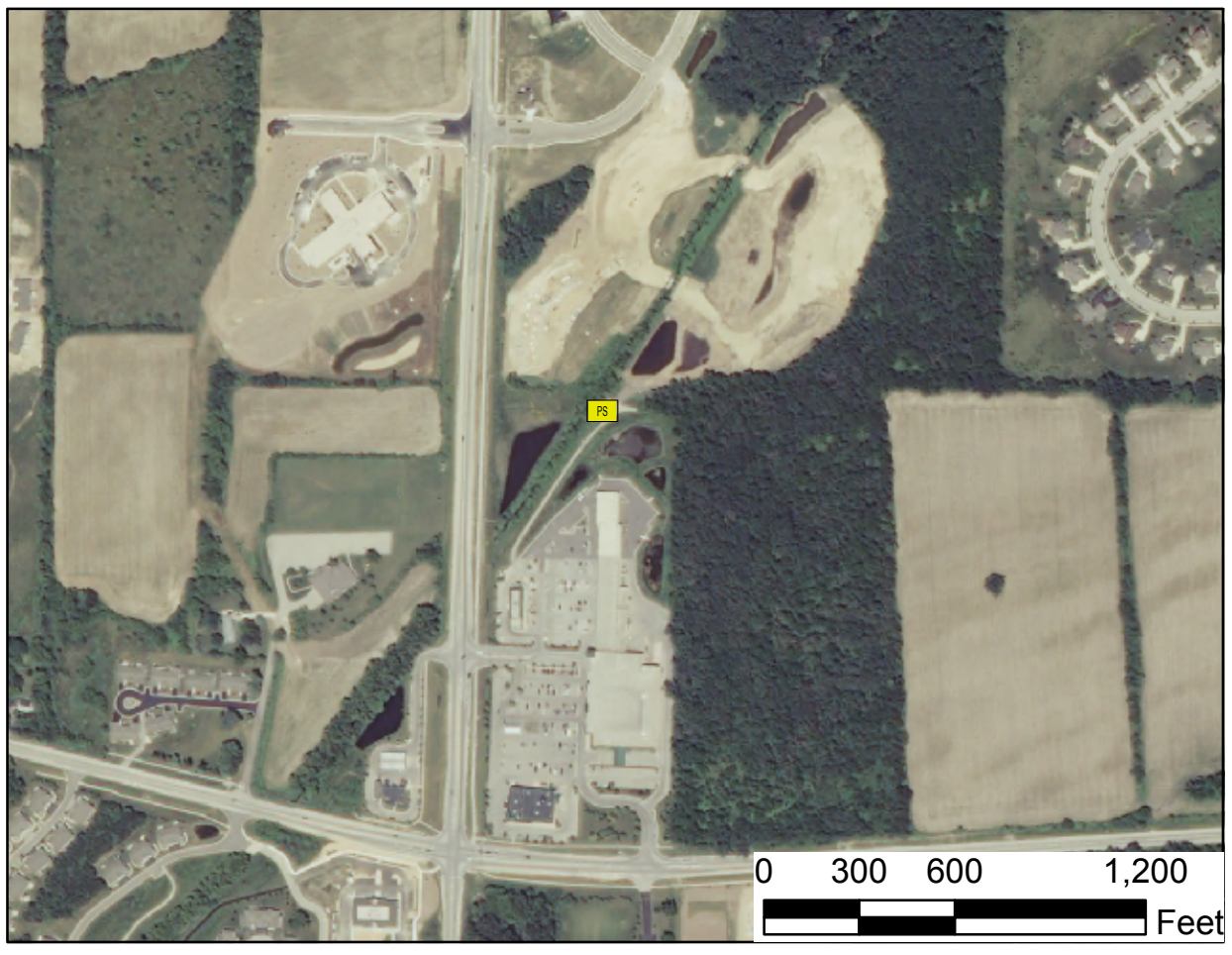
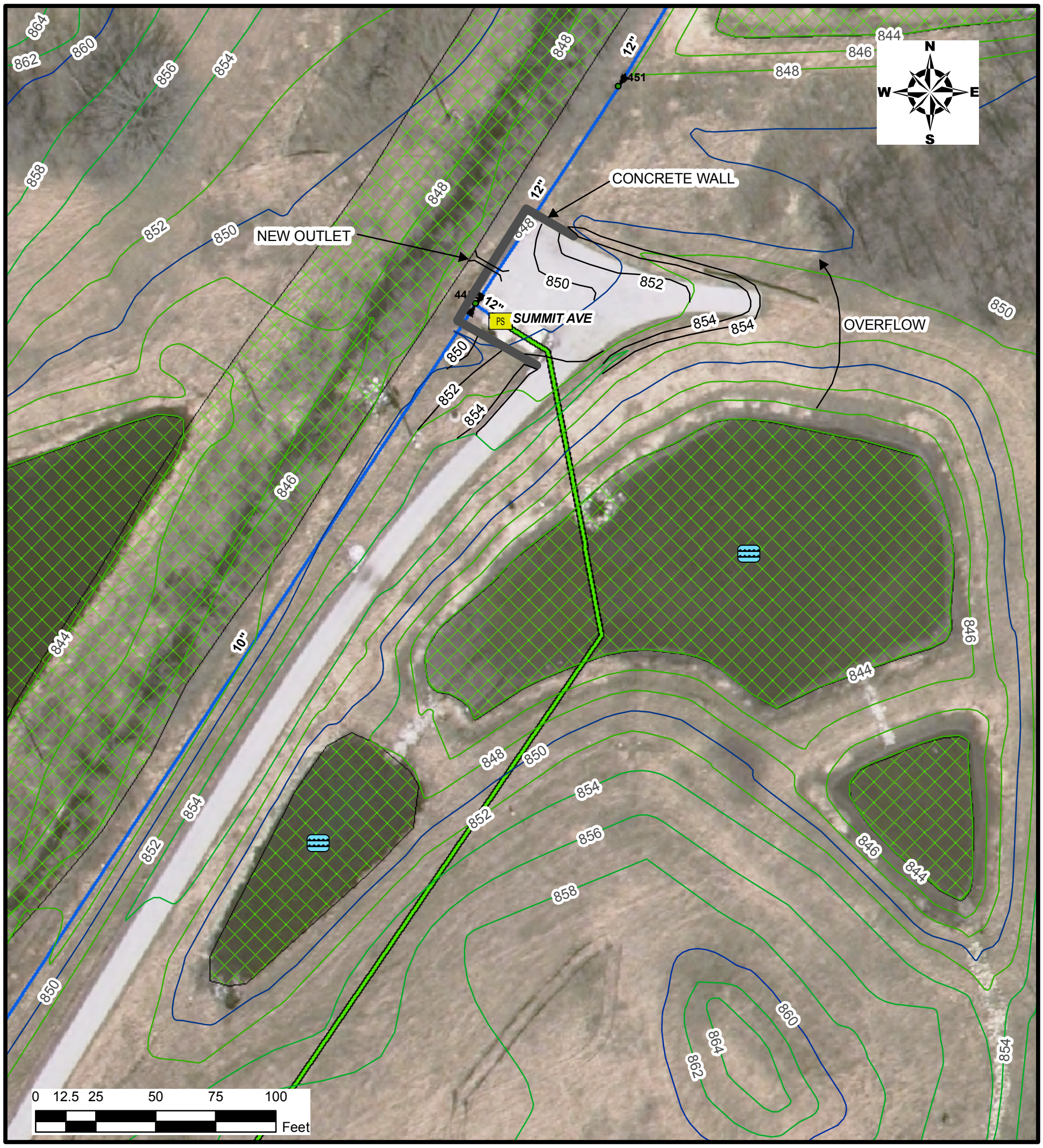


Figure 7
Existing Summit Pump Station
Waukesha, Wisconsin
May 18, 2009



- Flood Plain
- DNRWetlands
- Storm Sewer
- Culvert
- Open Channel
- Storm Outfall
- Pressurized Main
- Inlet Point
- Catch Basin
- Storage Basin
- Storm Outfall

Sanitary Lift Station

- PS Public
- PS Private

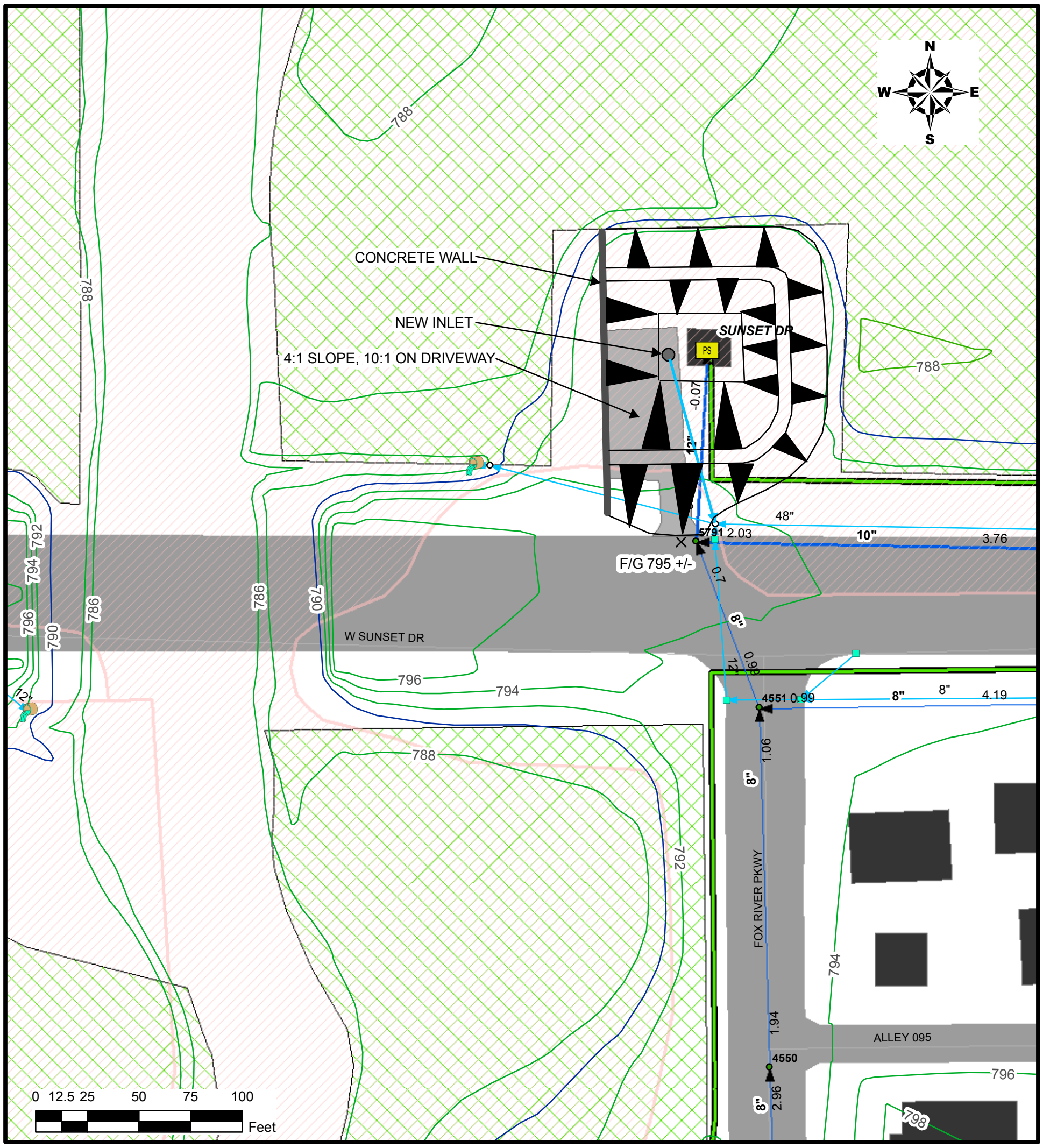
Figure 8
Proposed Summit Pump Station
Waukesha, Wisconsin
May 18, 2009

Flood Plain
DNRWetlands
Storm Sewer
Culvert
Open Channel
Storm Outfall
Pressurized Main
Inlet Point
Catch Basin
Storage Basin
Storm Outfall

Sanitary Lift Station

PS Public
PS Private

Figure 9
Existing Sunset Pump Station
Waukesha, Wisconsin
May 18, 2009



Flood Plain
DNRWetlands
Storm Sewer
Culvert
Open Channel
Storm Outfall
Pressurized Main
Inlet Point
Catch Basin
Storage Basin
Storm Outfall

Sanitary Lift Station

PS Public
PS Private

Figure 10
Proposed Sunset Pump Station
Waukesha, Wisconsin
May 18, 2009

Waukesha Conceptual Construction Cost Opinion
Lift Station Flood Protection Improvements

Aviation Drive Pump Station

Number	Item Description	Quantity	Units	Unit Cost	Item Cost
1	Site Preparation	1	LS	5000	$ 5,000
2	Regrading	1	LS	5000	$ 5,000
3	new inlet	1	EA	2000	$ 2,000
4	12" Pipe	90	FT	50	$ 4,500
5	12" backflow preventor	1	EA	2000	$ 2,000
	Subtotal				$ 18,500
	10% Mobilization and Job Administration				$ 1,900
	30% Concept Level Contingency				$ 5,600
	Total				$ 26,000

Coneview Pump Station

Number	Item Description	Quantity	Units	Unit Cost	Item Cost
1	Site Preparation	1	LS	5000	$ 5,000
2	Regrading	1	LS	5000	$ 5,000
3	New 8" concrete driveway and parking	344	SY	45	$ 15,500
4	Railroad Tie Landscaping Timbers	14	SY	50	$ 700
	Subtotal				$ 26,200
	10% Mobilization and Job Administration				$ 2,600
	30% Concept Level Contingency				$ 7,900
	Total				$ 36,700

Pebble Valley Station

Number	Item Description	Quantity	Units	Unit Cost	Item Cost
1	Site Preparation	1	LS	5000	$ 5,000
2	3 ft high Levee Fill Material, grading and compacting	1111	CY	15	$ 16,667
3	New 8" aggregate driveway and parking base	231	SY	5	$ 1,156
4	New 4" Bituminous	231	SY	15	$ 3,467
5	new inlet	1	EA	2000	$ 2,000
6	12" Pipe	35	FT	50	$ 1,750
7	12" backflow preventor	1	EA	2000	$ 2,000
8	New 5" Sidewalk 5 ft wide	67	SY	40	$ 2,667
9	Raise extg manhole rim	1	EA	2500	$ 2,500
10	Emergency connection to station for stormwater	1	EA	2500	$ 2,500
	Subtotal				$ 39,706
	10% Mobilization and Job Administration				$ 4,000
	30% Concept Level Contingency				$ 11,900
	Total				$ 55,600

Summit Pump Station

Number	Item Description	Quantity	Units	Unit Cost	Item Cost
1	Site Preparation	1	LS	5000	$ 5,000
2	Fill Material, grading and compacting	200	CY	15	$ 3,000
3	New 8" aggregate driveway and parking base	387	SY	5	$ 1,933
4	Concrete Wall 4 ft high	56	CY	500	$ 27,778
5	Wall excavation and preparation	1	LS	3000	$ 3,000
6	12" Pipe	10	FT	50	$ 500
7	12" backflow preventor	1	EA	2000	$ 2,000
8	Emergency connection to station for stormwater	1	EA	2500	$ 2,500
	Subtotal				$ 45,711
	10% Mobilization and Job Administration				$ 4,600
	30% Concept Level Contingency				$ 13,700
	Total				$ 64,000

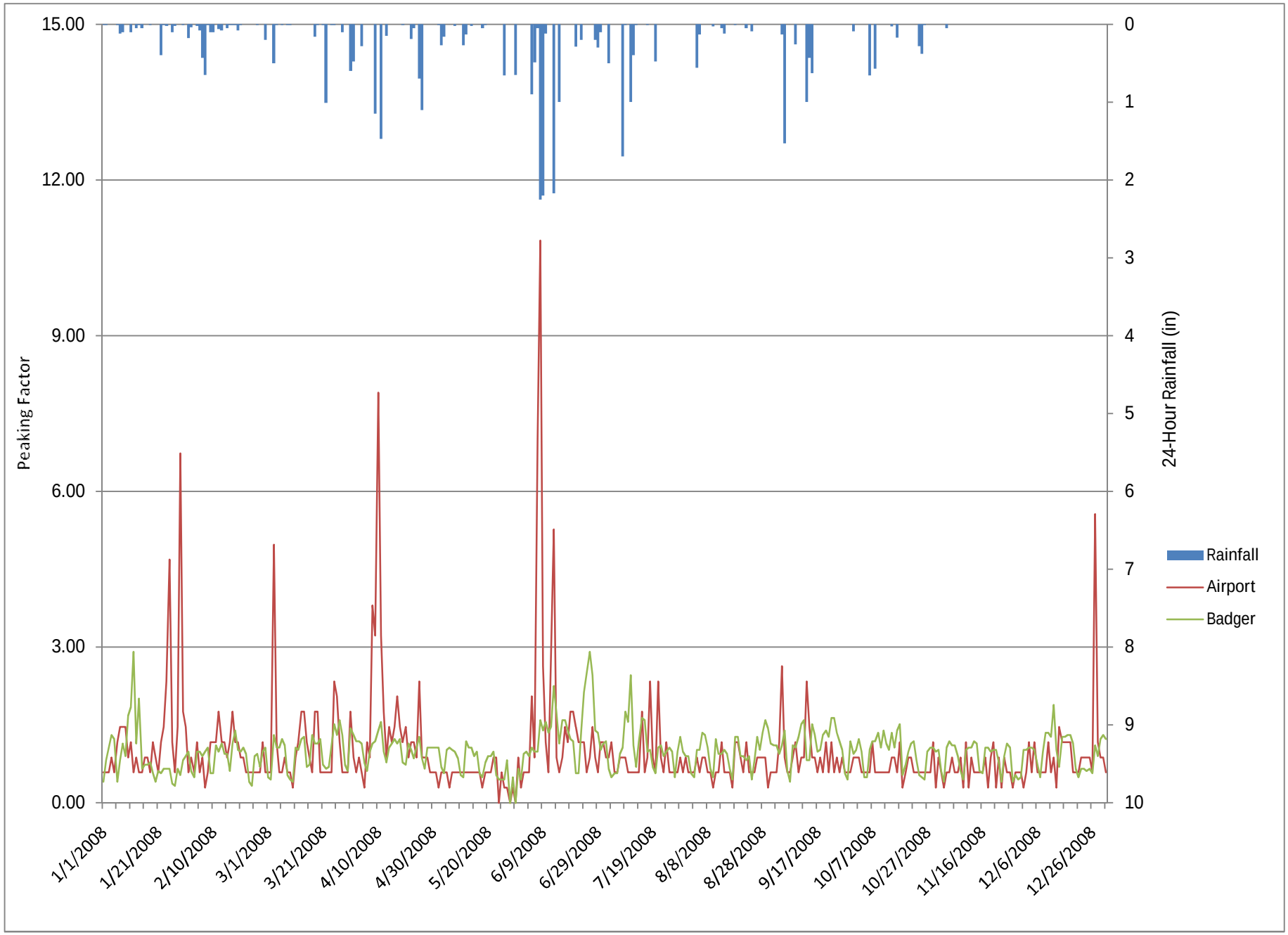
Sunset Pump Station

Number	Item Description	Quantity	Units	Unit Cost	Item Cost
1	Site Preparation	1	LS	5000	$ 5,000
2	3 ft high Levee Fill Material, grading and compacting	756	CY	15	$ 11,333
3	New 8" aggregate driveway and parking base	312	SY	5	$ 1,561
4	New 4" Bituminous	312	SY	15	$ 4,683
5	new inlet/manhole/headwall	3	EA	2500	$ 7,500
6	12" Pipe	155	FT	50	$ 7,750
7	12" backflow preventor	1	EA	2000	$ 2,000
8	New 5" trail 6 ft wide	60	SY	40	$ 2,400
9	Raise extg manhole rim	1	EA	2500	$ 2,500
10	Emergency connection to station for stormwater	1	EA	2500	$ 2,500
	Subtotal				$ 47,228
	10% Mobilization and Job Administration				$ 4,700
	30% Concept Level Contingency				$ 14,200
	Total				$ 66,100

Grand Total All Stations $ 248,400

Appendix B

2008 Pump Station Peaking Factors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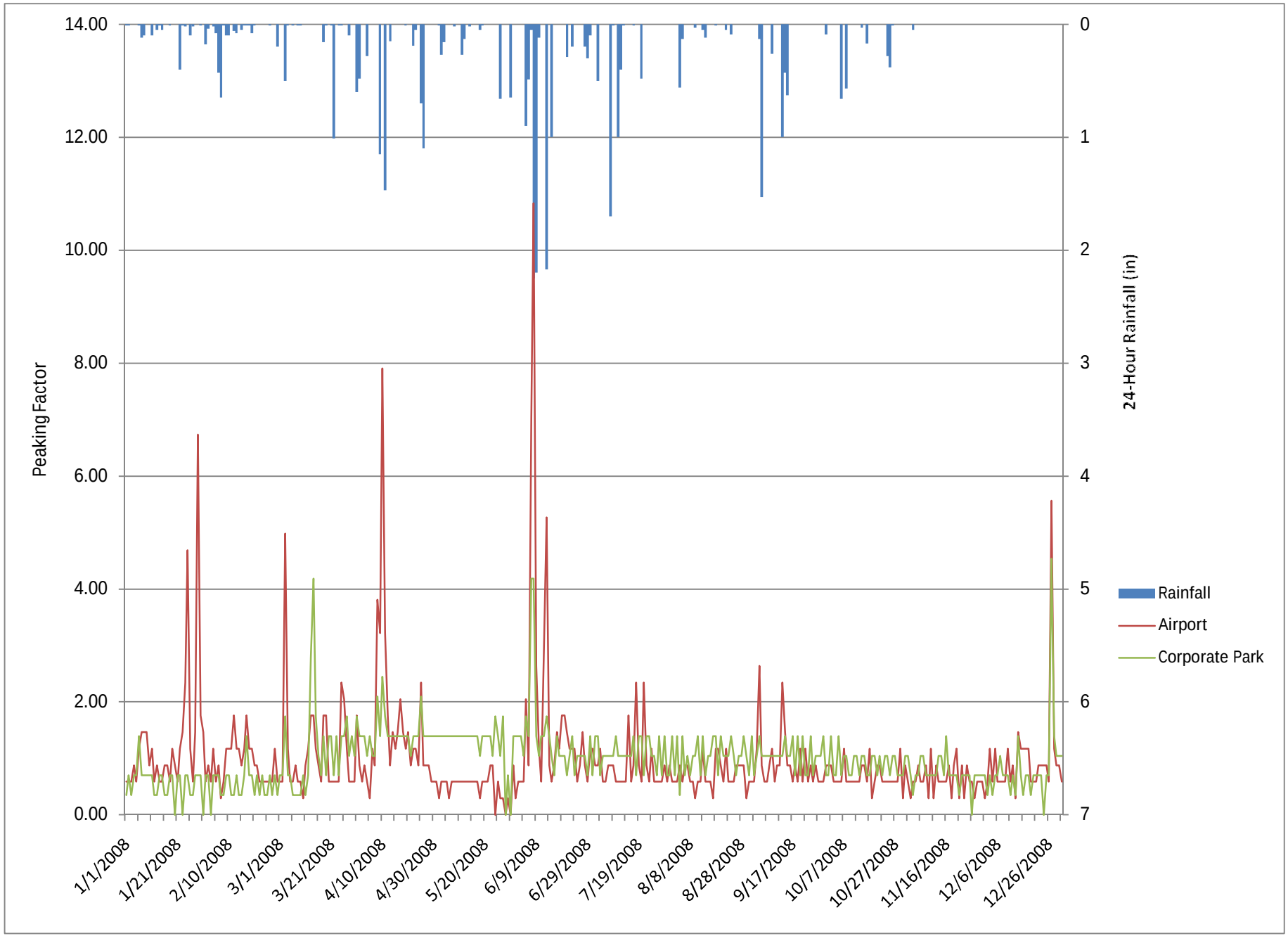
1
2
3
4
5
6
7
8
9
10
24-Hour Rainfall (in)
1/1/2008
1/21/2008
2/10/2008
3/1/2008
3/21/2008
4/10/2008
4/30/2008
5/20/2008
6/9/2008
6/29/2008
7/19/2008
8/8/2008
8/28/2008
9/17/2008
10/7/2008
10/27/2008
11/16/2008
12/6/2008
12/26/2008
Rainfall
Airport
Badger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2
3
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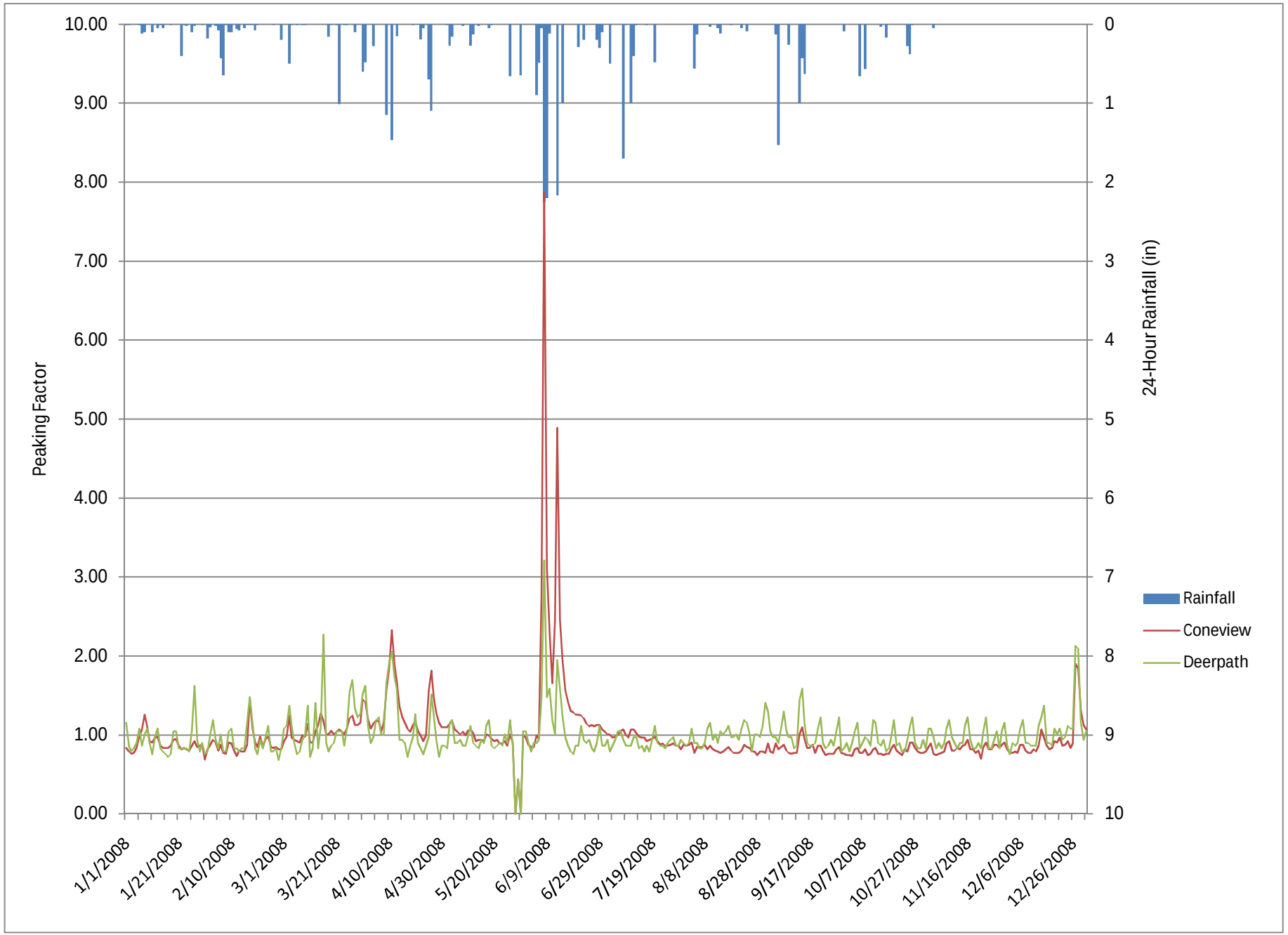
24-Hour Rainfall (in)
1/1/2008
1/21/2008
2/10/2008
3/1/2008
3/21/2008
4/10/2008
4/30/2008
5/20/2008
6/9/2008
6/29/2008
7/19/2008
8/8/2008
8/28/2008
9/17/2008
10/7/2008
10/27/2008
11/16/2008
12/6/2008
12/26/2008
Rainfall
Airport
Corporate Park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1
2
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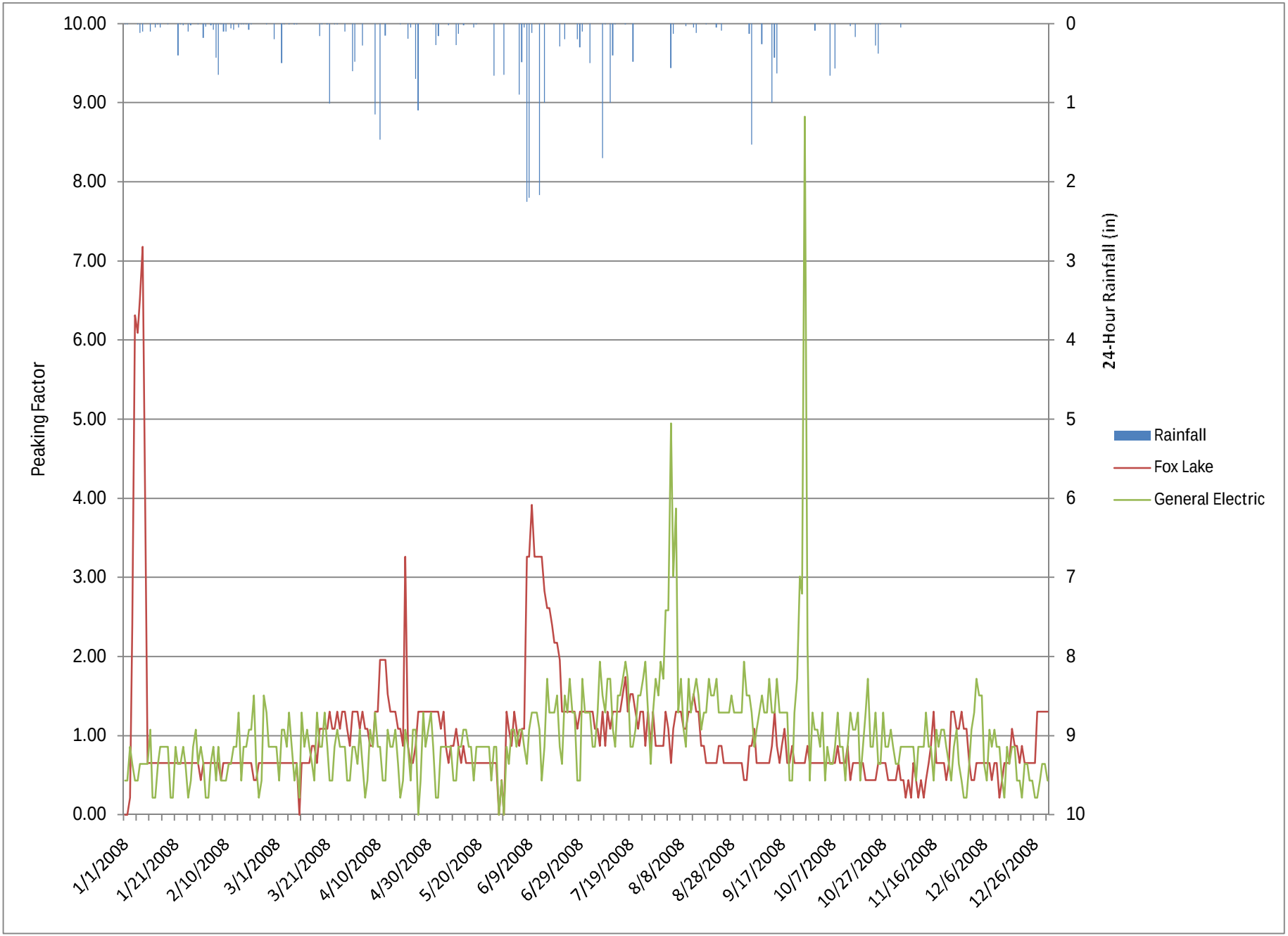
6
7
8
9
10
1/1/2008
1/21/2008
2/10/2008
3/1/2008
3/21/2008
4/10/2008
4/30/2008
5/20/2008
6/9/2008
6/29/2008
7/19/2008
8/8/2008
8/28/2008
9/17/2008
10/7/2008
10/27/2008
11/16/2008
12/6/2008
12/26/2008
Rainfall
Coneview
Deerpath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0
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3
4
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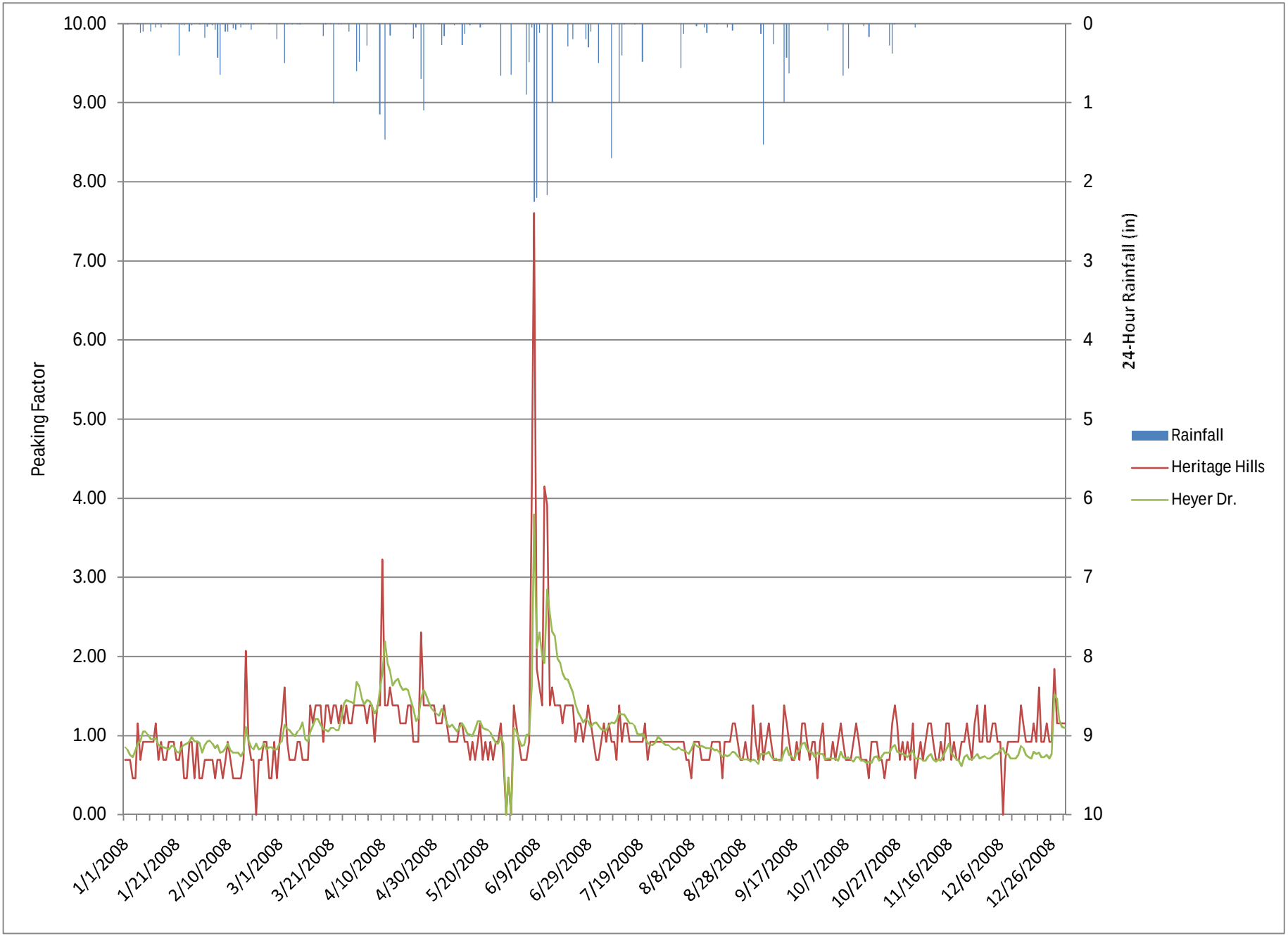
6
7
8
9
10
24-Hour Rainfall (in)
Rainfall
Fox Lake
General Electric
1/1/2008
1/21/2008
2/10/2008
3/1/2008
3/21/2008
4/10/2008
4/30/2008
5/20/2008
6/9/2008
6/29/2008
7/19/2008
8/8/2008
8/28/2008
9/17/2008
10/7/2008
10/27/2008
11/16/2008
12/6/2008
12/26/2008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Rainfall
Heritage Hills
Heyer Dr.
1/1/2008
1/21/2008
2/10/2008
3/1/2008
3/21/2008
4/10/2008
4/30/2008
5/20/2008
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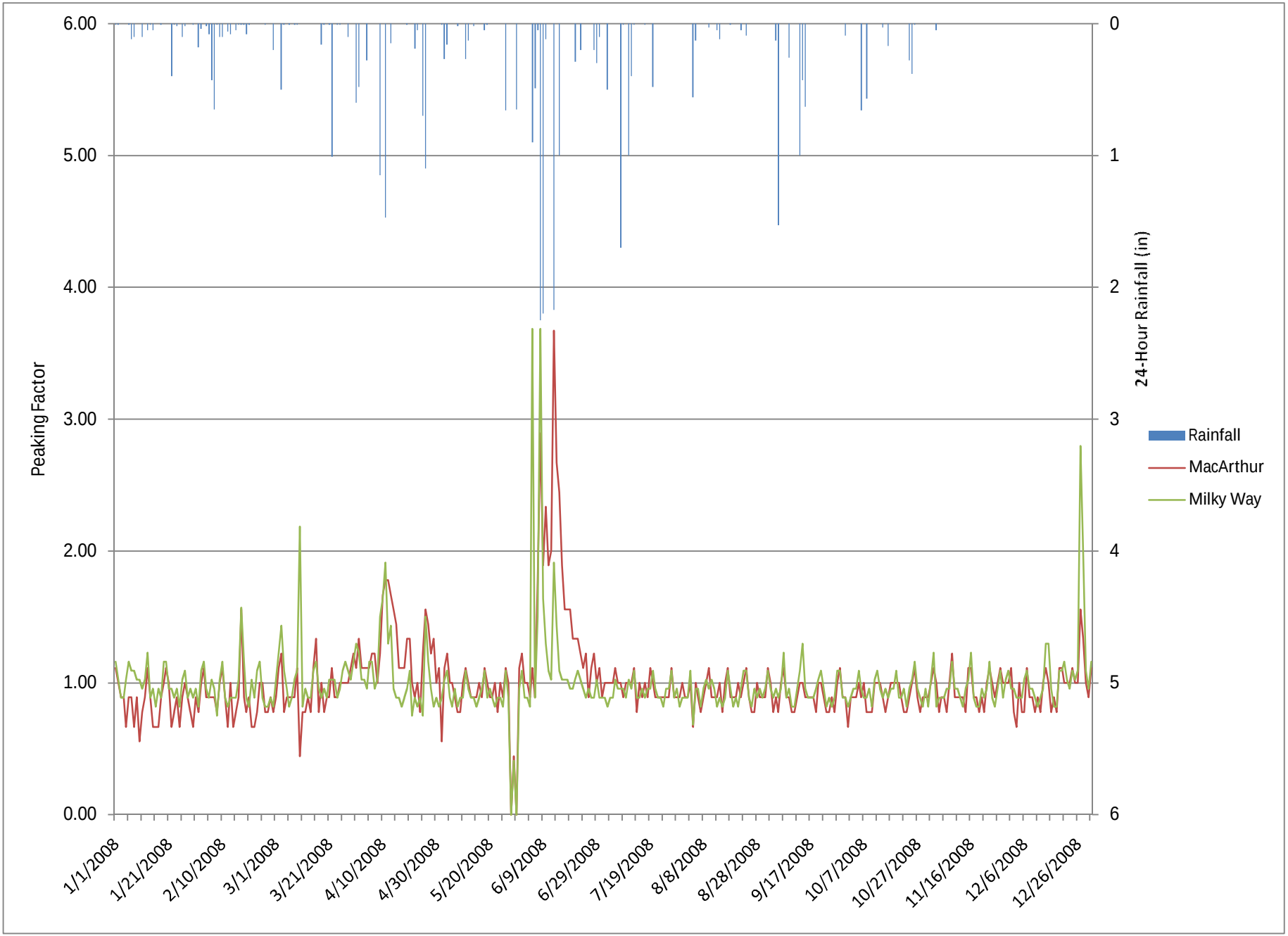
6/29/2008
7/19/2008
8/8/2008
8/28/2008
9/17/2008
10/7/2008
10/27/2008
11/16/2008
12/6/2008
12/26/2008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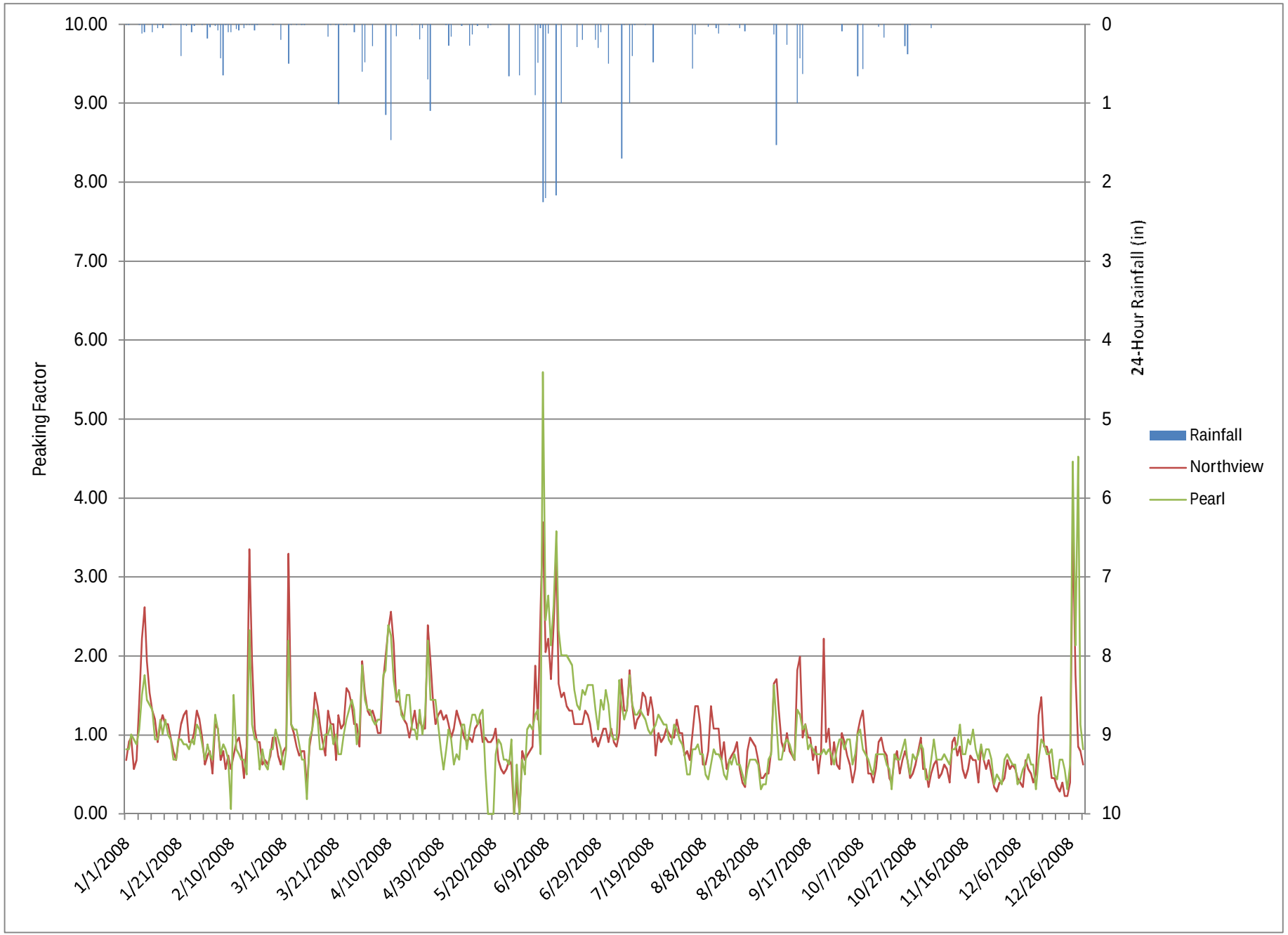
24-Hour Rainfall (in)
1/1/2008
1/21/2008
2/10/2008
3/1/2008
3/21/2008
4/10/2008
4/30/2008
5/20/2008
6/9/2008
6/29/2008
7/19/2008
8/8/2008
8/28/2008
9/17/2008
10/7/2008
10/27/2008
11/16/2008
12/6/2008
12/26/2008
Rainfall
MacArthur
Milky Way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7
8
9
10
24-Hour Rainfall (in)
Rainfall
Northview
Pearl
1/1/2008
1/21/2008
2/10/2008
3/1/2008
3/21/2008
4/10/2008
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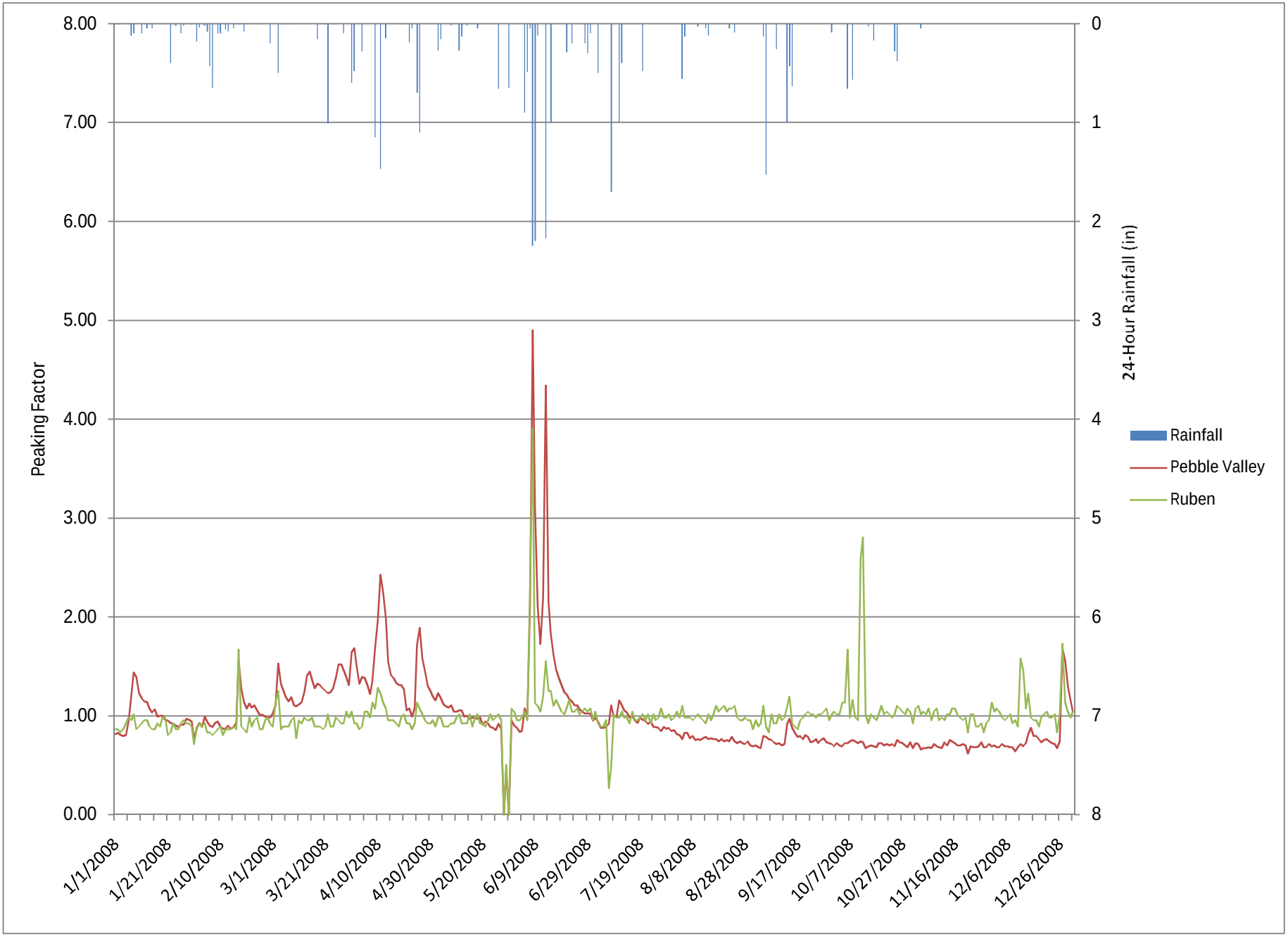
10/27/2008
11/16/2008
12/6/2008
12/26/2008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24-Hour Rainfall (in)
Rainfall
Pebble Valley
Ruben
1/1/2008
1/21/2008
2/10/2008
3/1/2008
3/21/2008
4/10/2008
4/30/2008
5/20/2008
6/9/2008
6/29/2008
7/19/2008
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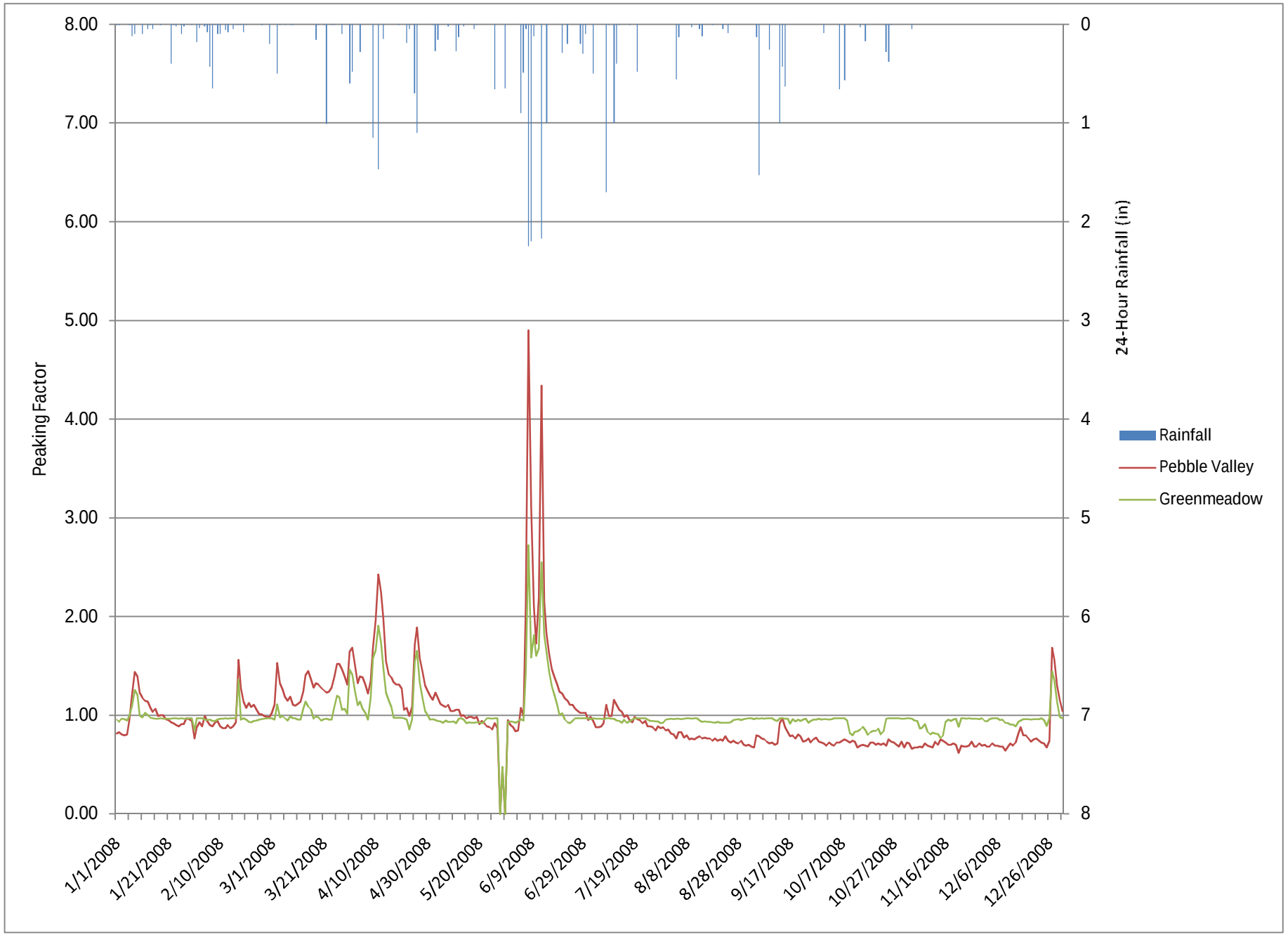
9/17/2008
10/7/2008
10/27/2008
11/16/2008
12/6/2008
12/26/2008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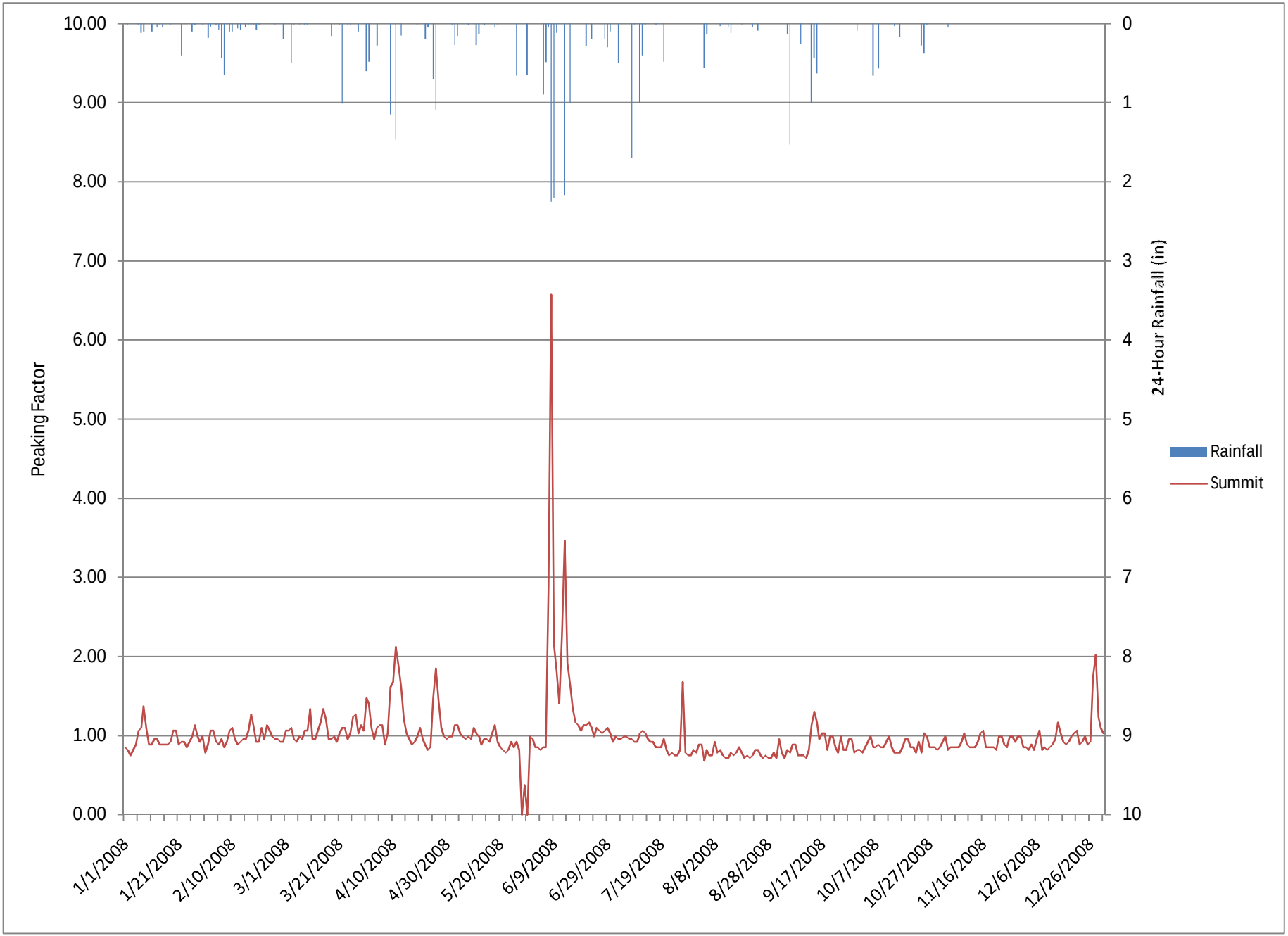
24-Hour Rainfall (in)
1/1/2008
1/21/2008
2/10/2008
3/1/2008
3/21/2008
4/10/2008
4/30/2008
5/20/2008
6/9/2008
6/29/2008
7/19/2008
8/8/2008
8/28/2008
9/17/2008
10/7/2008
10/27/2008
11/16/2008
12/6/2008
12/26/2008
Rainfall
Pebble Valley
Greenmeadow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Peaking Factor
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1
2
3
4
5
6
7
8
9
10
24-Hour Rainfall (in)
Rainfall
Summit
1/1/2008
1/21/2008
2/10/2008
3/1/2008
3/21/2008
4/10/2008
4/30/2008
5/20/2008
6/9/2008
6/29/2008
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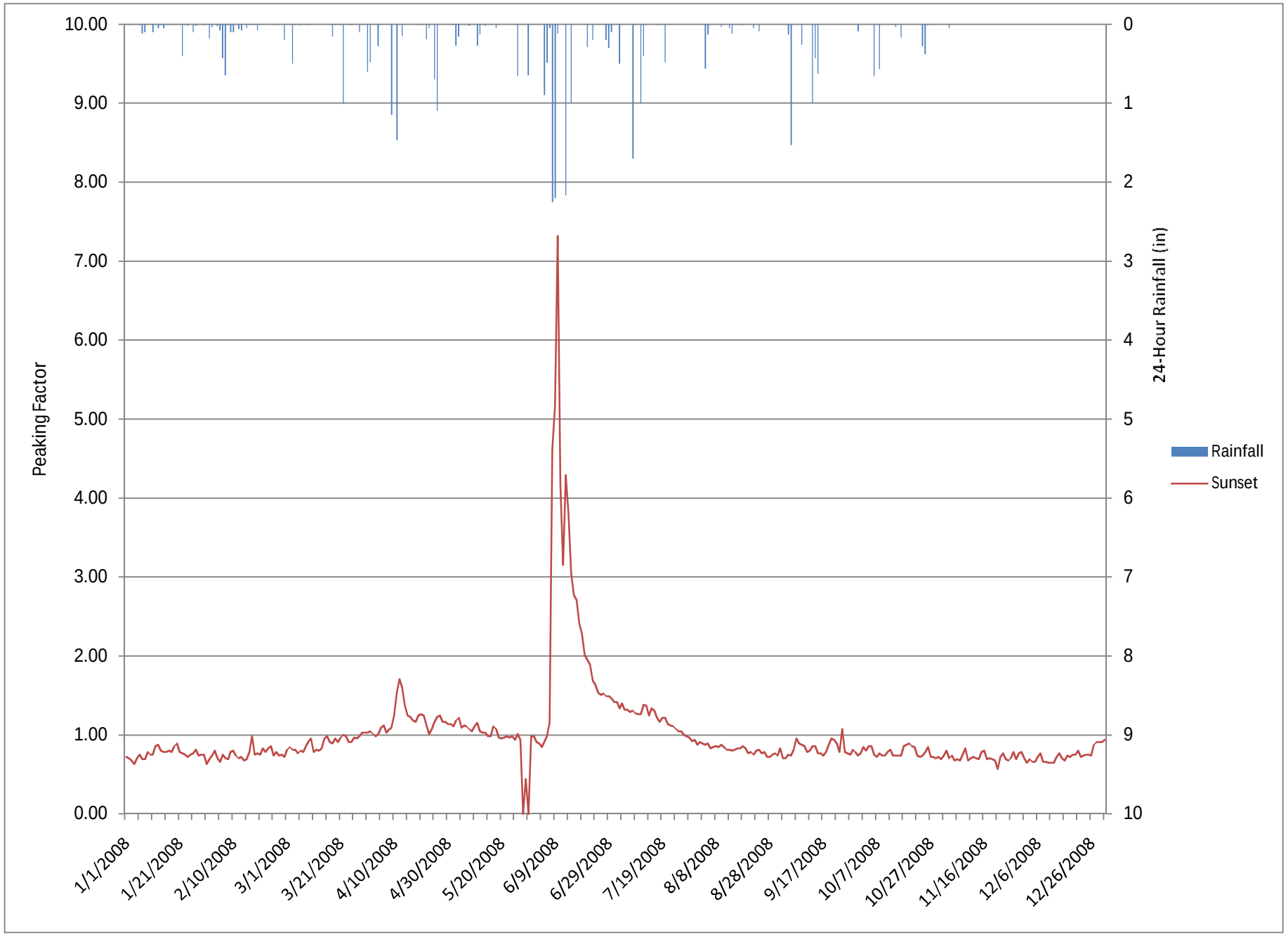
11/16/2008
12/6/2008
12/26/2008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Peaking Factor
0
1
2
3
4
5
6
7
8
9
10
24-Hour Rainfall (in)
Rainfall
Sunset
1/1/2008
1/21/2008
2/10/2008
3/1/2008
3/21/2008
4/10/2008
4/30/2008
5/20/2008
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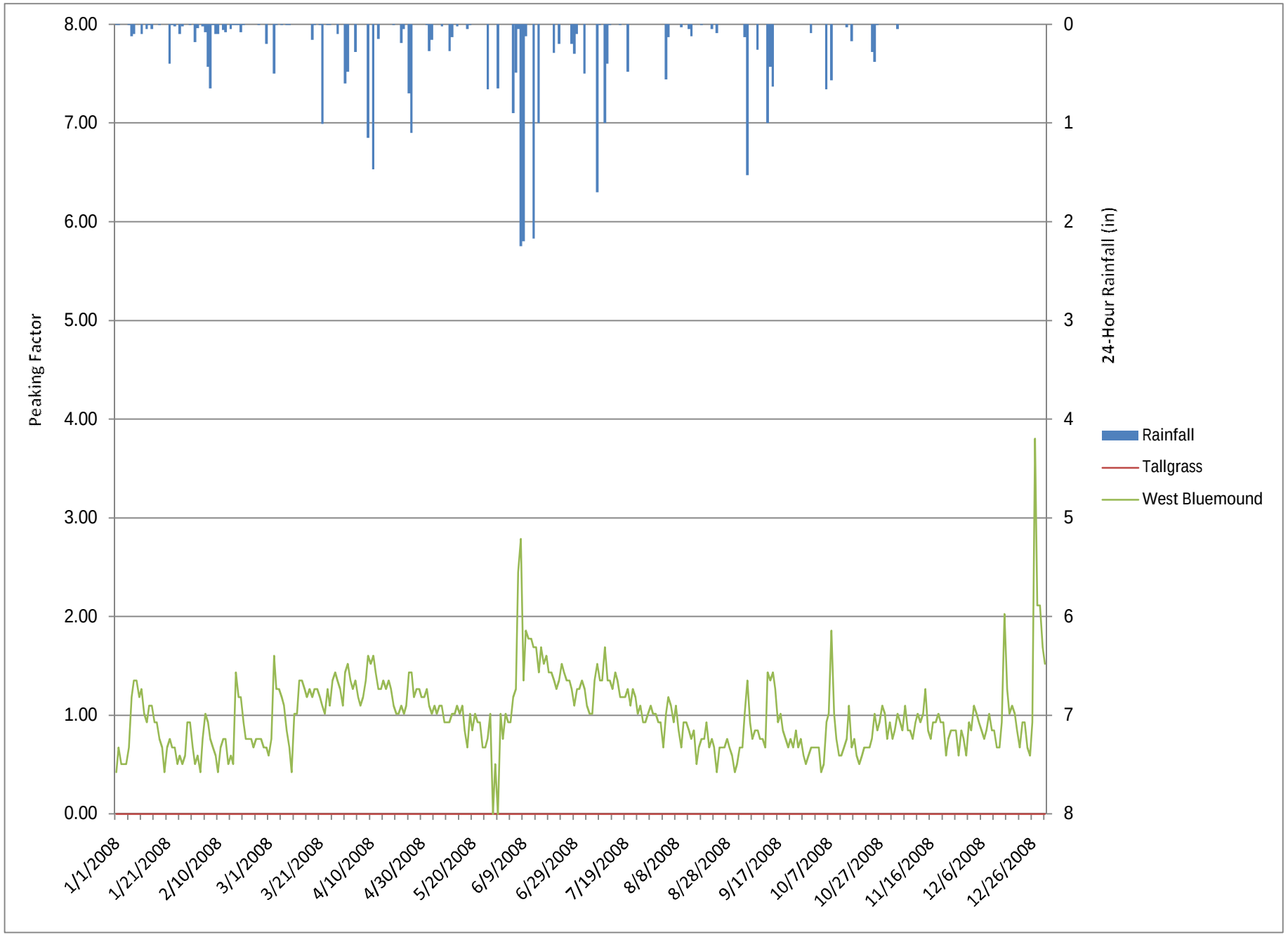
12/6/2008
12/26/2008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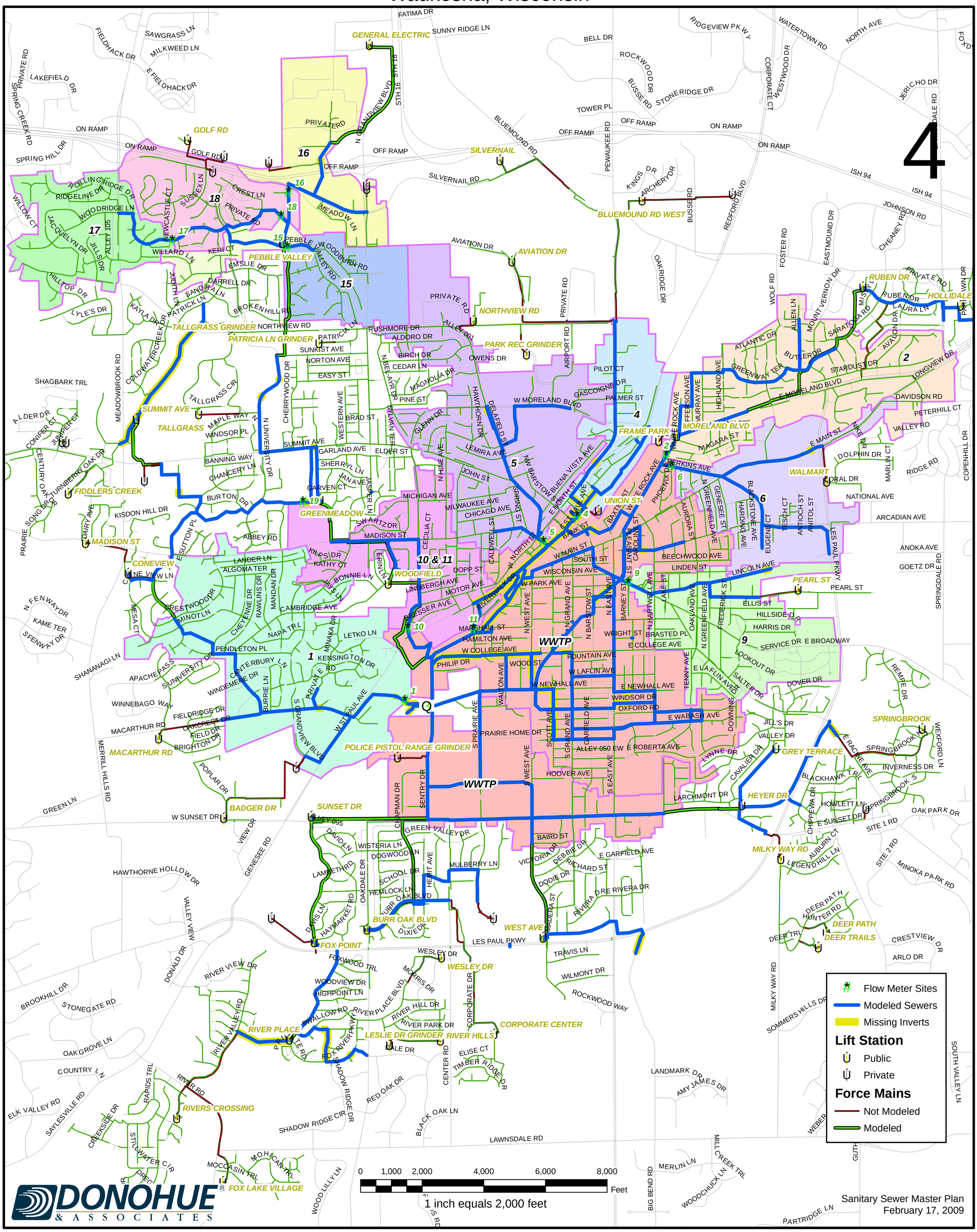
Peaking Factor
0
1
2
3
4
5
6
7
8
24-Hour Rainfall (in)
1/1/2008
1/21/2008
2/10/2008
3/1/2008
3/21/2008
4/10/2008
4/30/2008
5/20/2008
6/9/2008
6/29/2008
7/19/2008
8/8/2008
8/28/2008
9/17/2008
10/7/2008
10/27/2008
11/16/2008
12/6/2008
12/26/2008
Rainfall
Tallgrass
West Bluemound

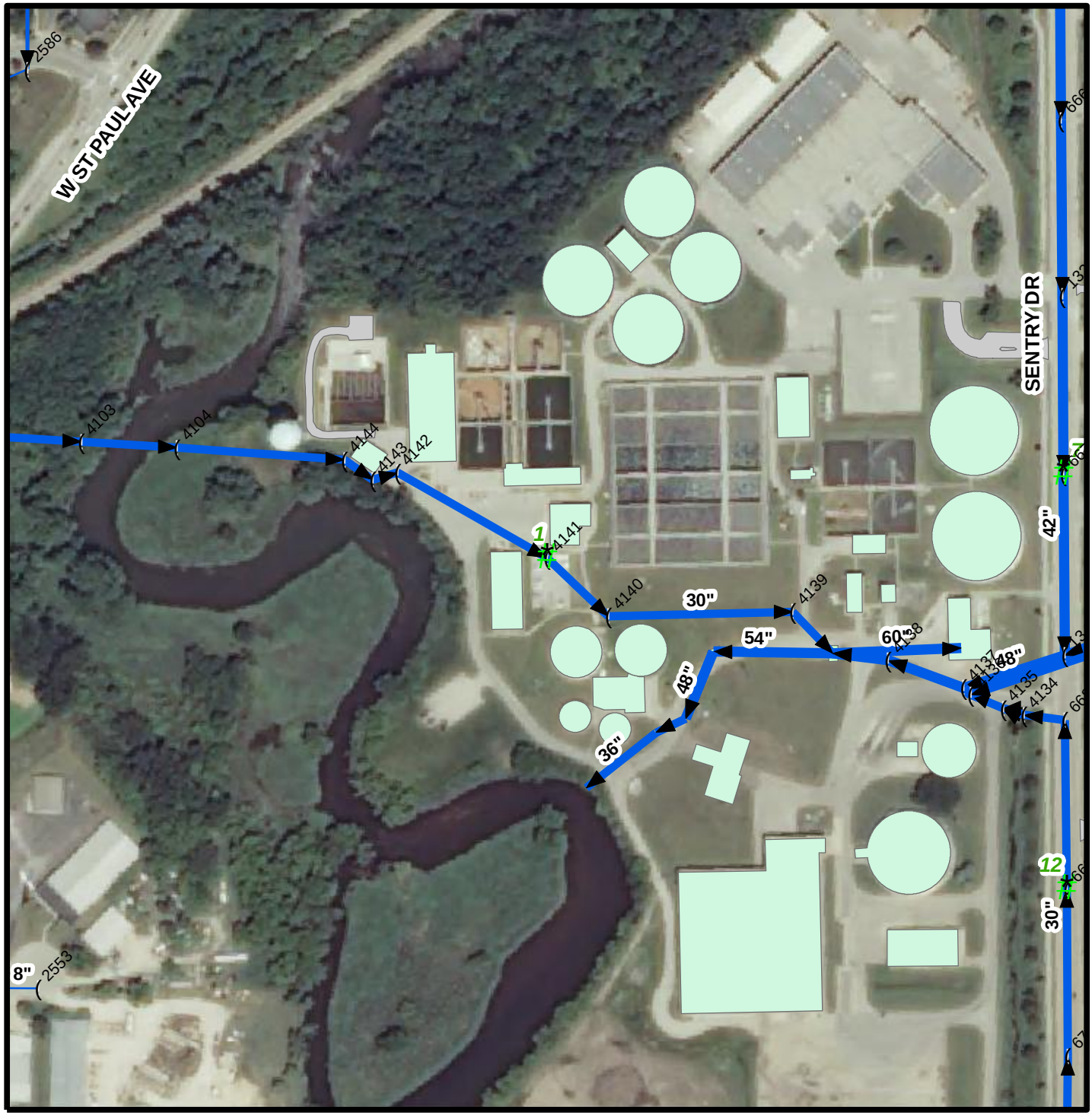
Appendix C

Flow Monitoring Site Plans

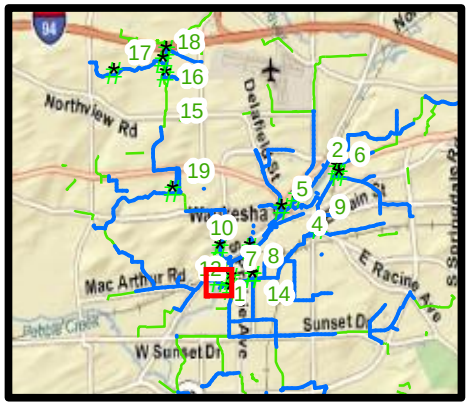
Flow Monitoring Program
Waukesha, Wisconsin



Flow Monitoring Sites



1 inch equals 250 feet



Flow Meter Sites

Lift Station

Public

Private

Force Mains

Not Modeled

Modeled

4

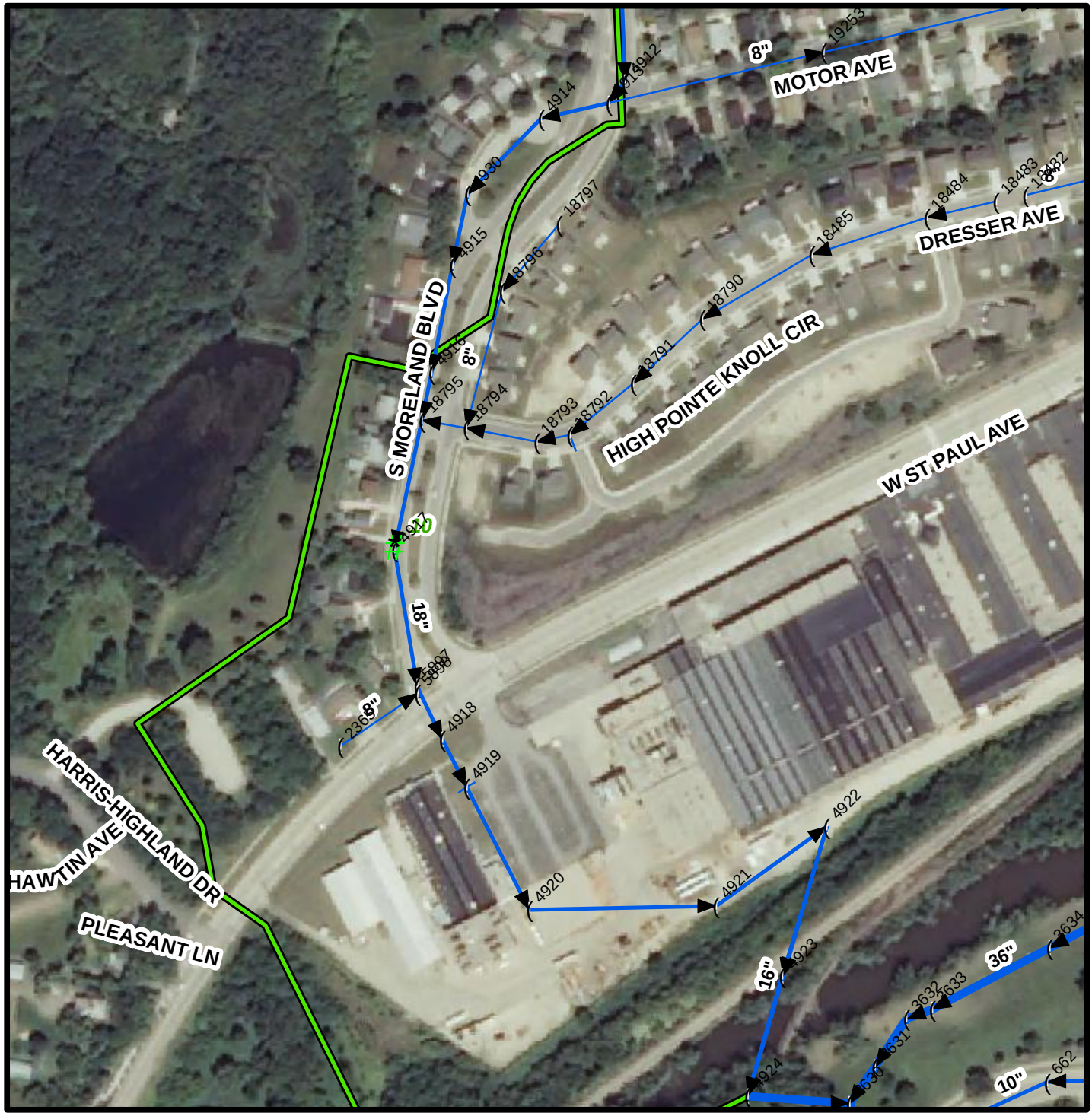
Site # 1

Sanitary Sewer Master Plan
February 26, 2009

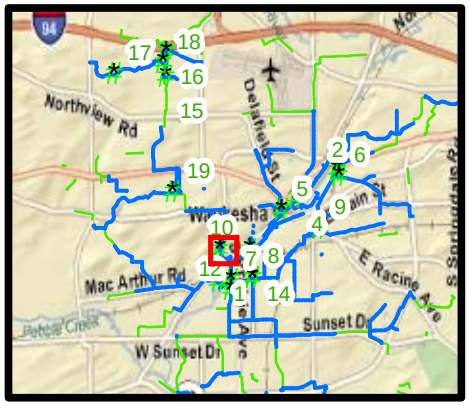
City of Waukesha

DONOHUE & ASSOCIATES

Flow Monitoring Sites



1 inch equals 250 feet



Flow Meter Sites

Lift Station

- Public
- Private

Force Mains

- Not Modeled
- Modeled

4

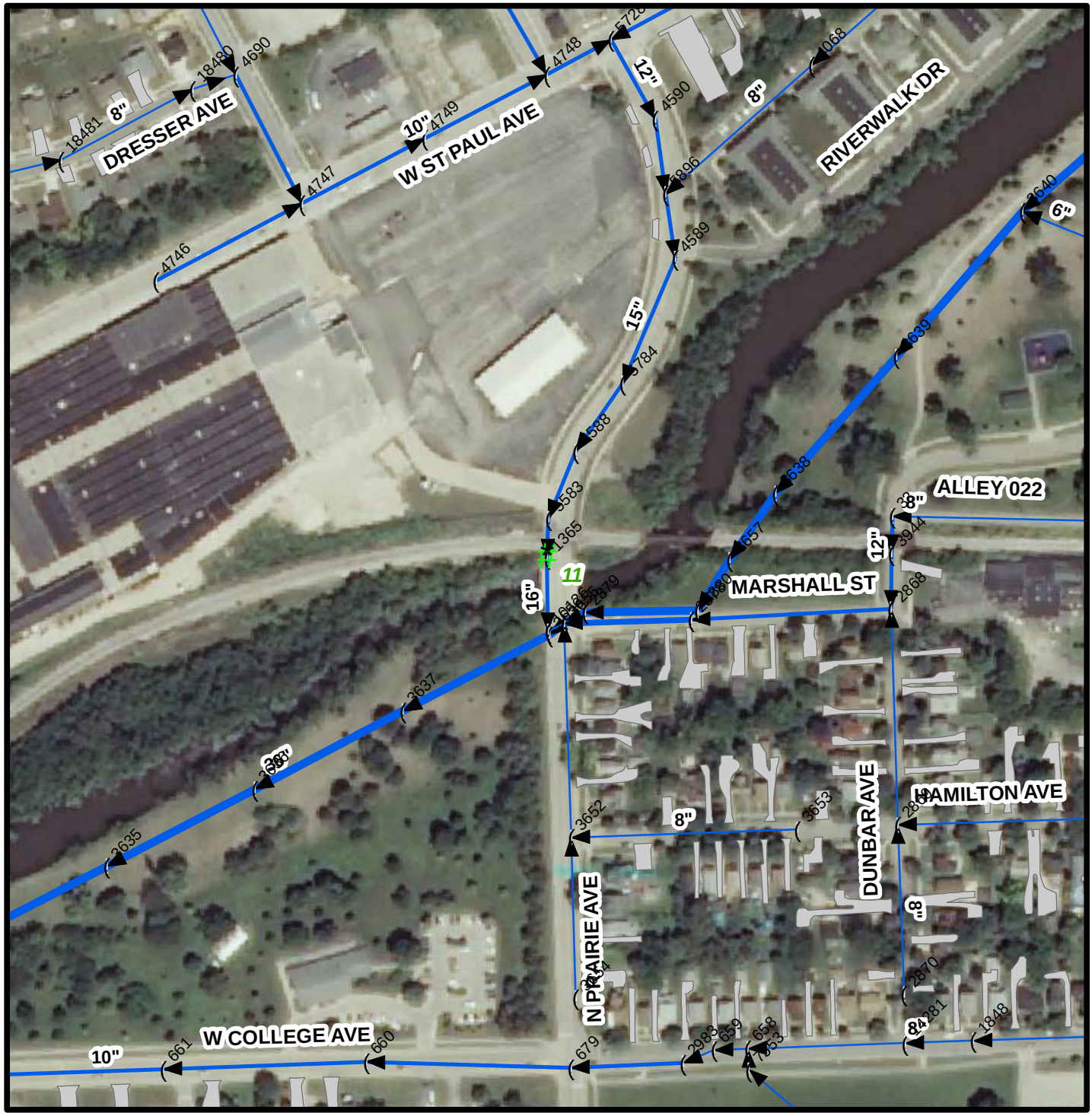
Site # 10

Sanitary Sewer Master Plan
February 26, 2009

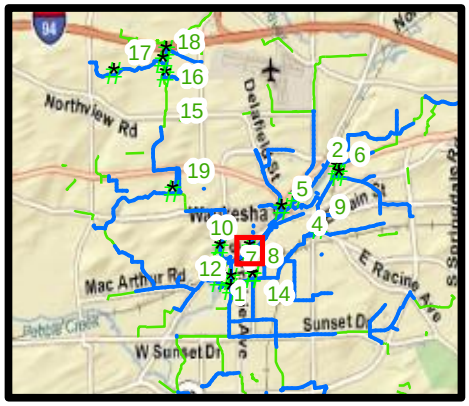
City of Waukesha

DONOHUE & ASSOCIATES

Flow Monitoring Sites



1 inch equals 250 feet



Flow Meter Sites

Lift Station

- Public
- Private

Force Mains

- Not Modeled
- Modeled

4

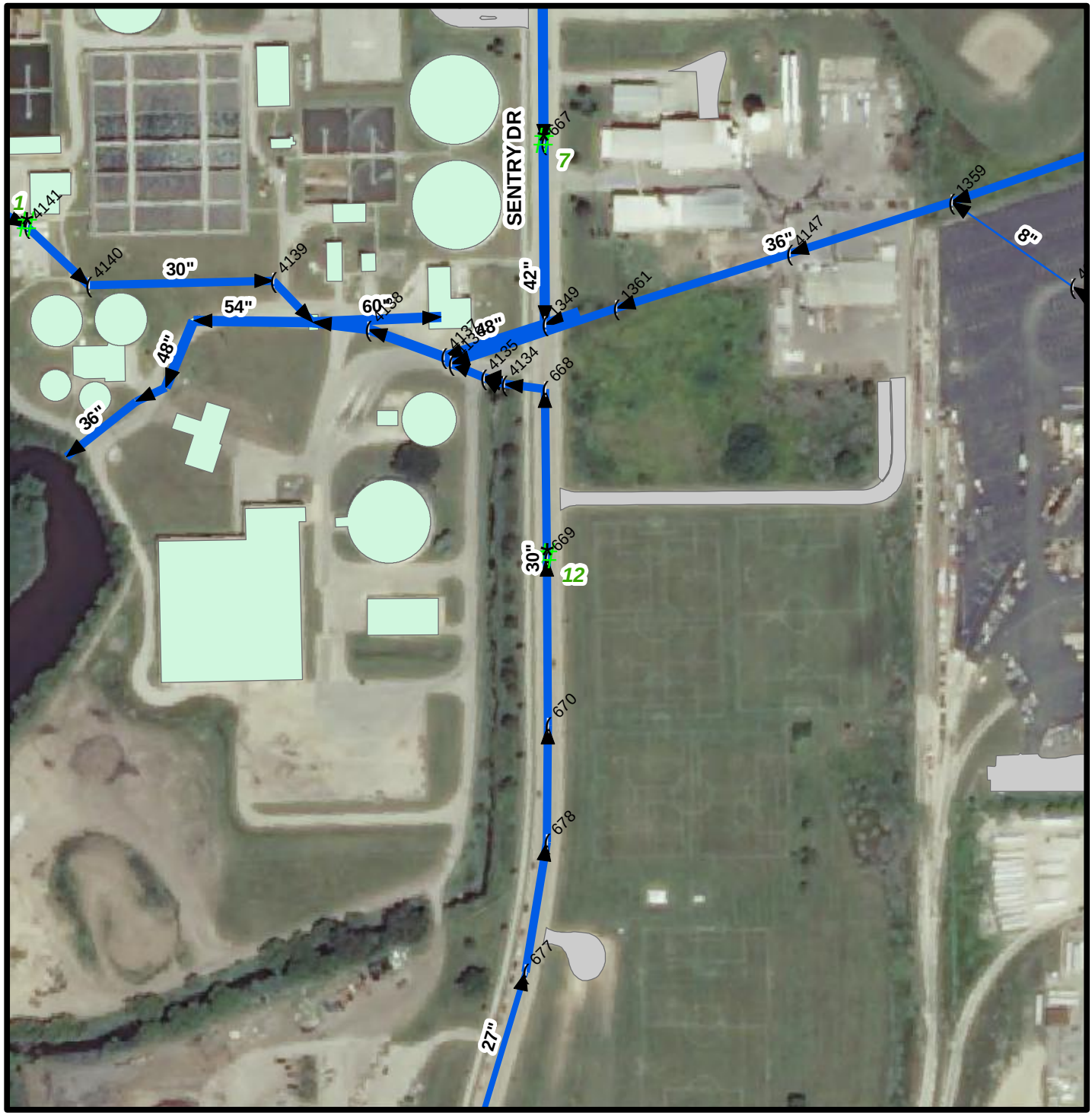
Site # 11

Sanitary Sewer Master Plan
February 26, 2009

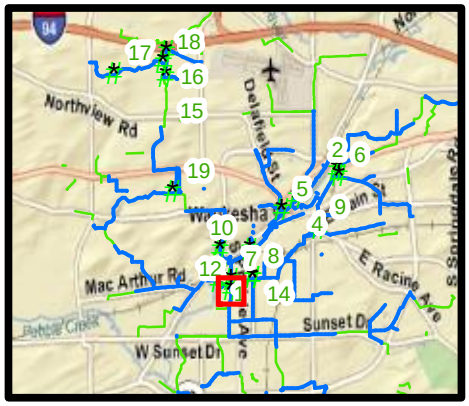
City of Waukesha

DONOHUE & ASSOCIATES

Flow Monitoring Sites



1 inch equals 250 feet



Flow Meter Sites

Lift Station

Public

Private

Force Mains

Not Modeled

Modeled

4

Site # 12

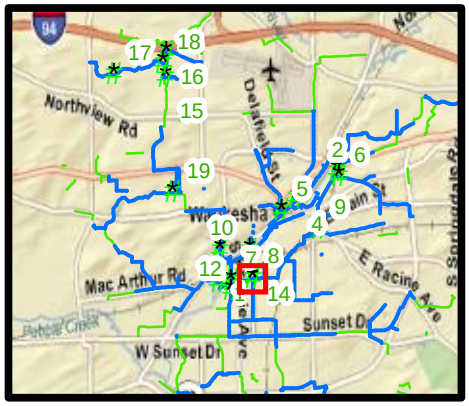
Sanitary Sewer Master Plan
February 26, 2009

City of Waukesha

DONOHUE & ASSOCIATES

Flow Monitoring Sites

1 inch equals 250 feet



Flow Meter Sites

Lift Station

- Public
- Private

Force Mains

- Not Modeled
- Modeled

4

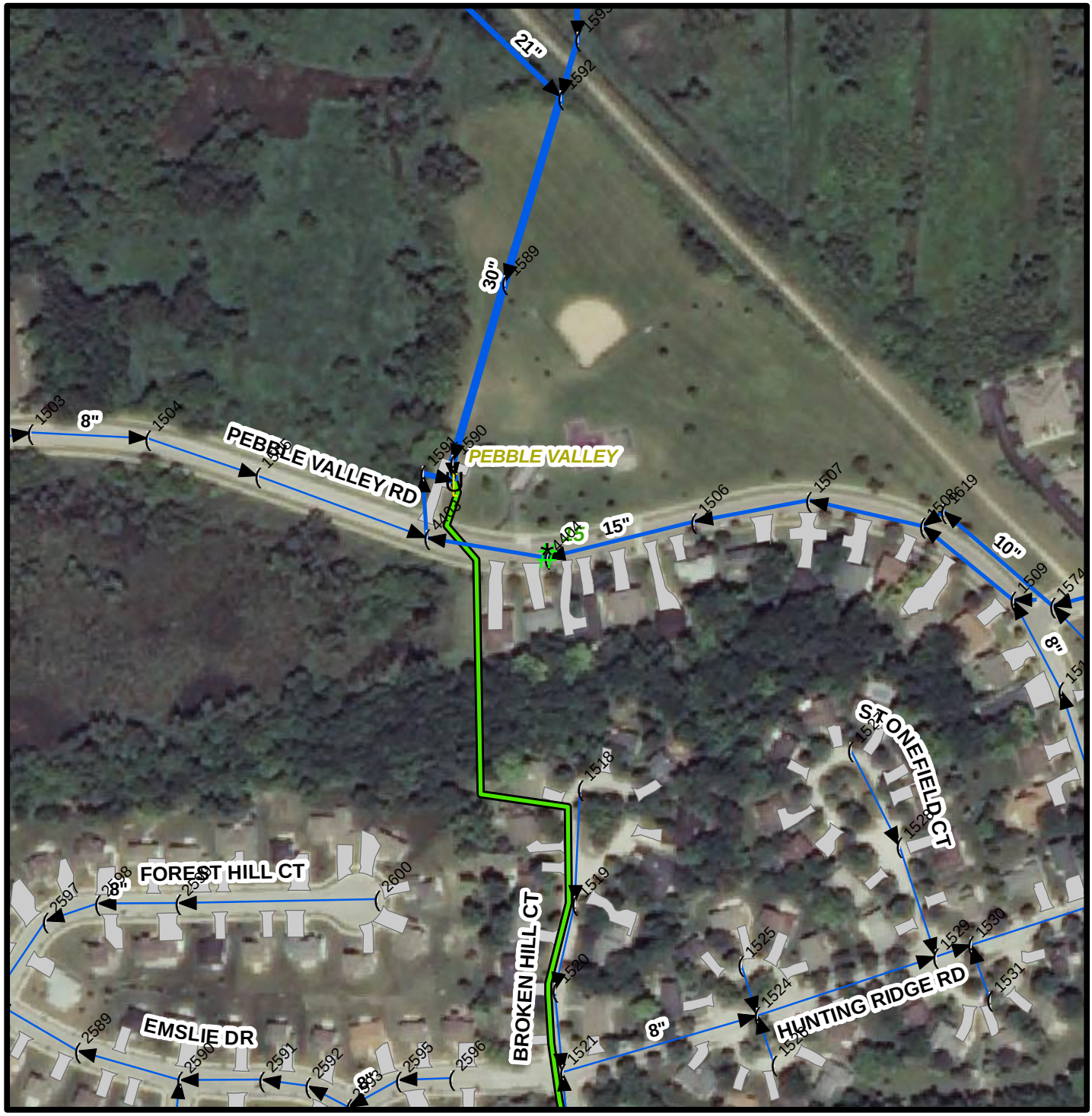
Site # 14

Sanitary Sewer Master Plan
February 26, 2009

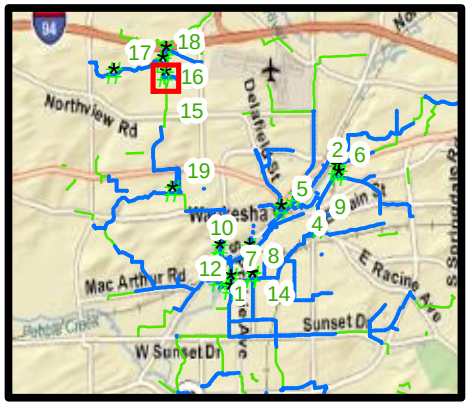
City of Waukesha

DONOHUE & ASSOCIATES

Flow Monitoring Sites



1 inch equals 250 feet



Flow Meter Sites

Lift Station

- Public
- Private

Force Mains

- Not Modeled
- Modeled

4

Site # 15

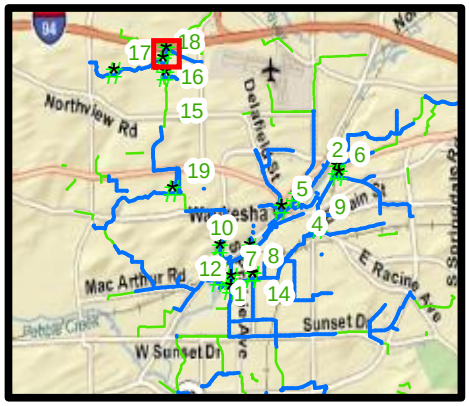
Sanitary Sewer Master Plan
February 26, 2009

City of Waukesha

DONOHUE & ASSOCIATES

Flow Monitoring Sites

1 inch equals 250 feet



Flow Meter Sites

Lift Station

- Public
- Private

Force Mains

- Not Modeled
- Modeled

4

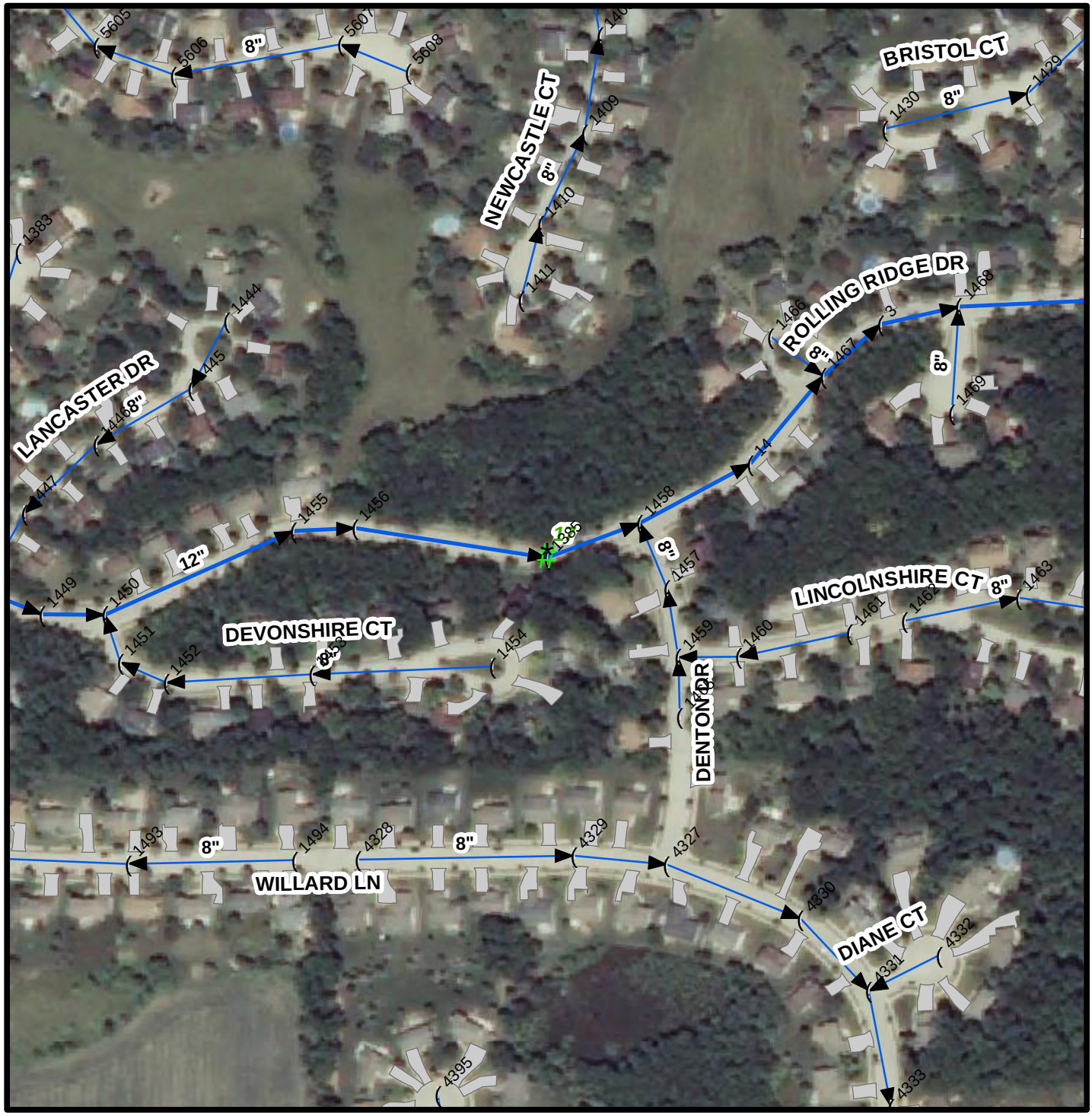
Site # 16

Sanitary Sewer Master Plan
February 26, 2009

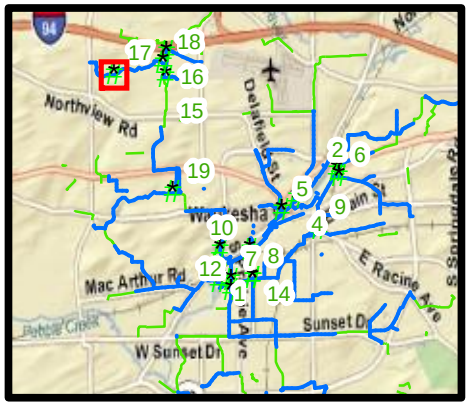
City of Waukesha

DONOHUE & ASSOCIATES

Flow Monitoring Sites



1 inch equals 250 feet



Flow Meter Sites

Lift Station

- Public
- Private

Force Mains

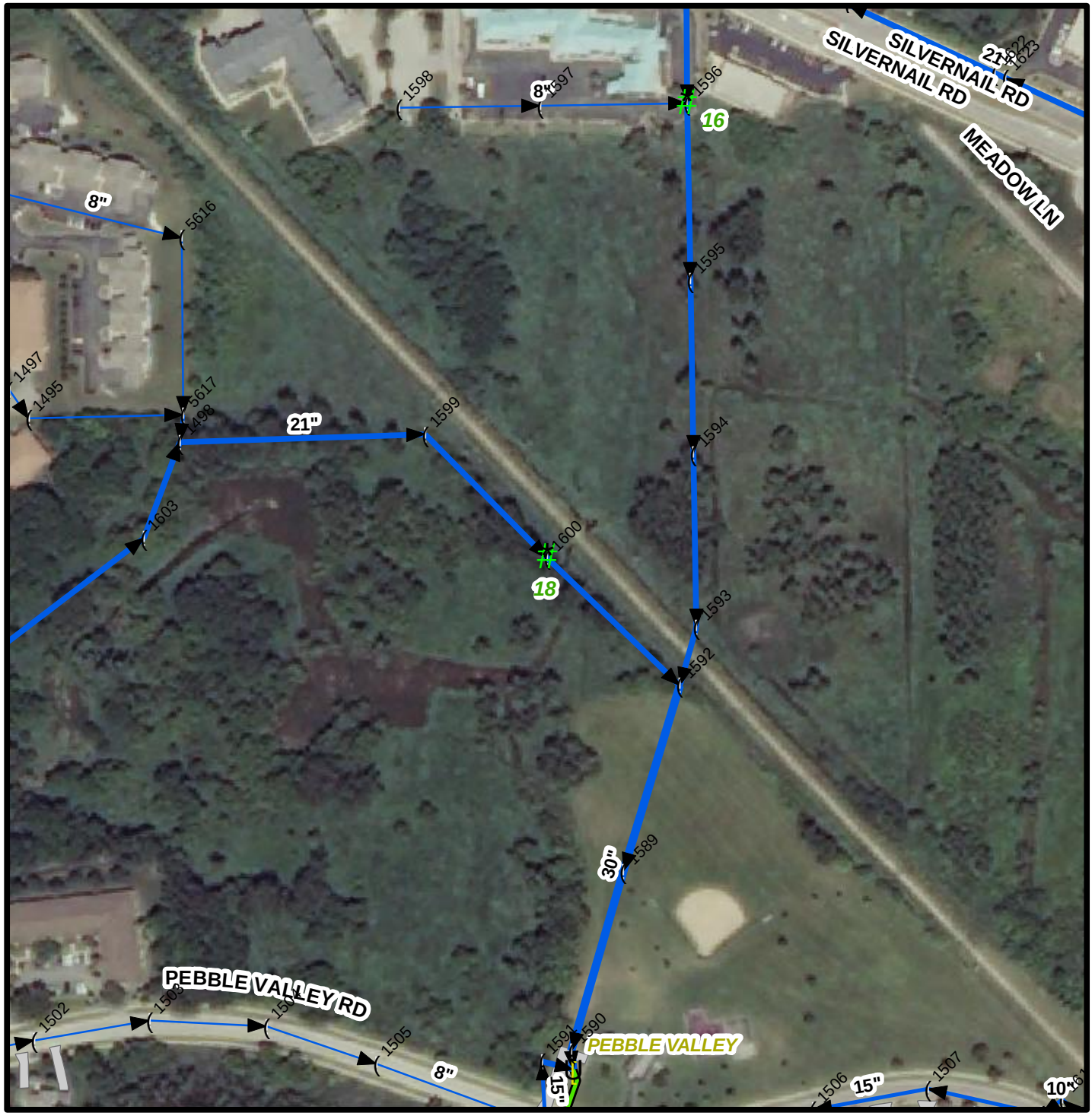
- Not Modeled
- Modeled

4

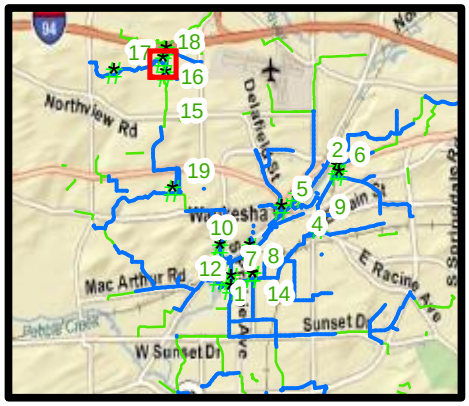
Site # 17

Sanitary Sewer Master Plan
February 26, 2009

Flow Monitoring Sites



1 inch equals 250 feet



Flow Meter Sites

Lift Station

Public

Private

Force Mains

Not Modeled

Modeled

4

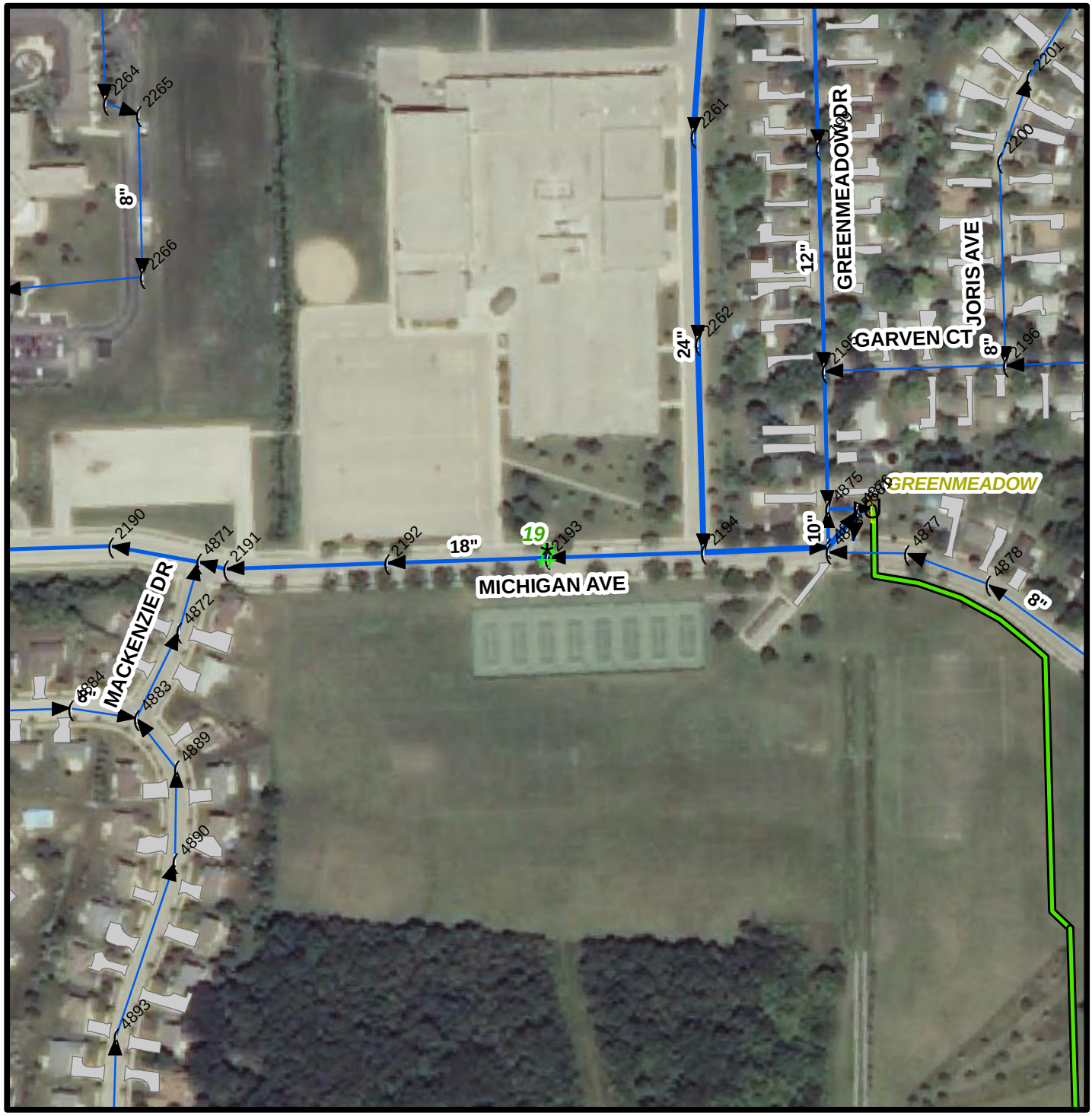
Site # 18

Sanitary Sewer Master Plan
February 26, 2009

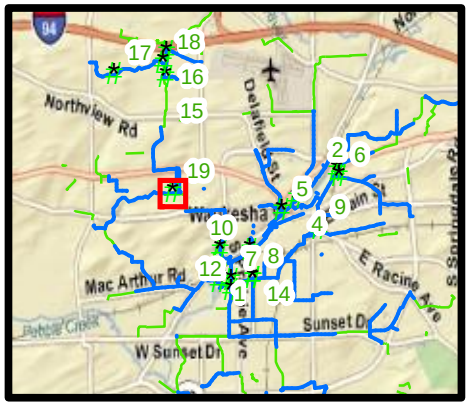
City of Waukesha

DONOHUE & ASSOCIATES

Flow Monitoring Sites



1 inch equals 250 feet



Flow Meter Sites

Lift Station

Public

Private

Force Mains

Not Modeled

Modeled

4

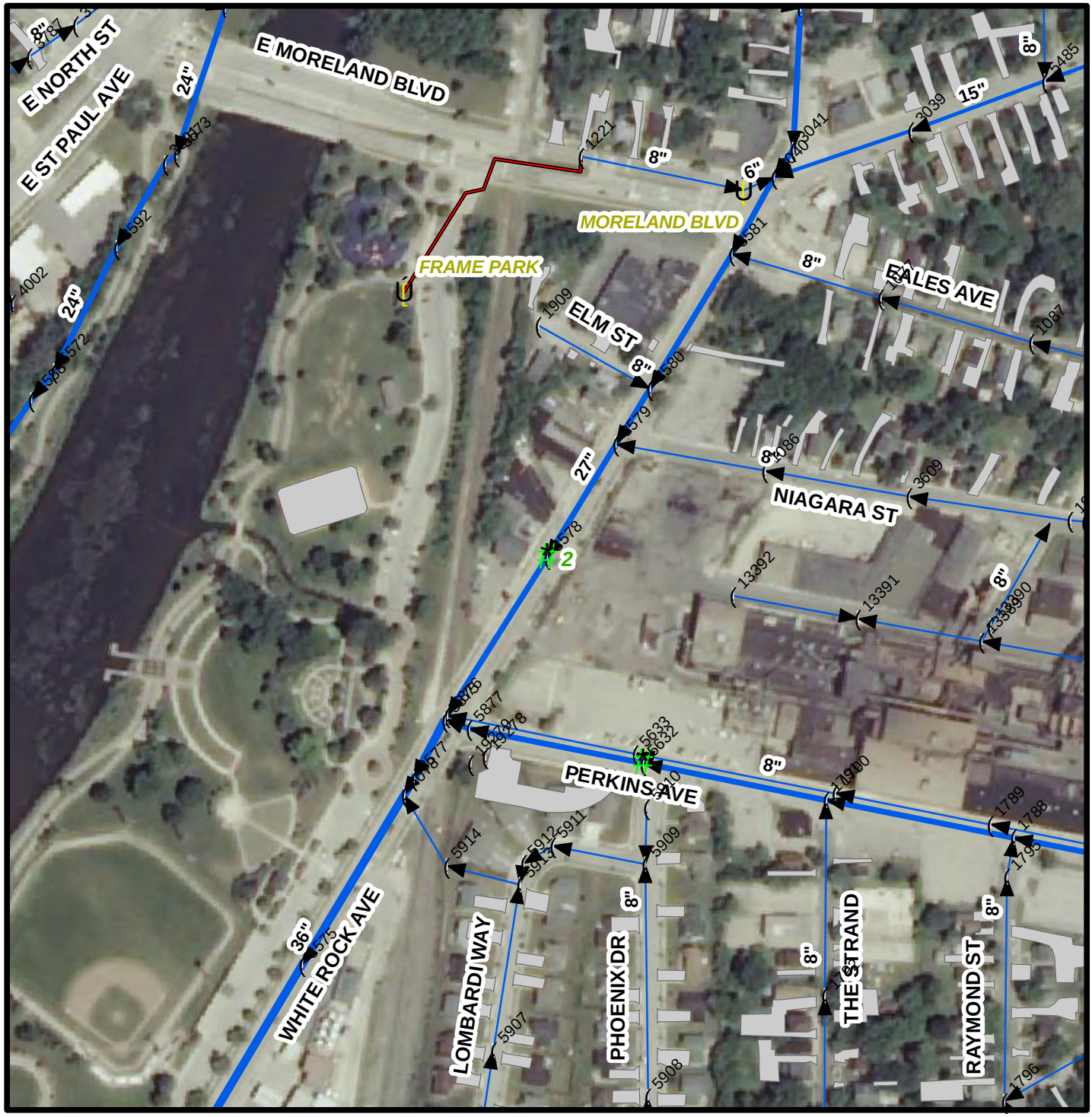
Site # 19

Sanitary Sewer Master Plan
February 26, 2009

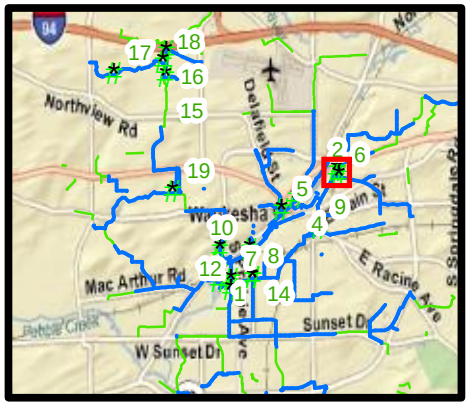
City of Waukesha

DONOHUE & ASSOCIATES

Flow Monitoring Sites



1 inch equals 250 feet



Flow Meter Sites

Lift Station

Public

Private

Force Mains

Not Modeled

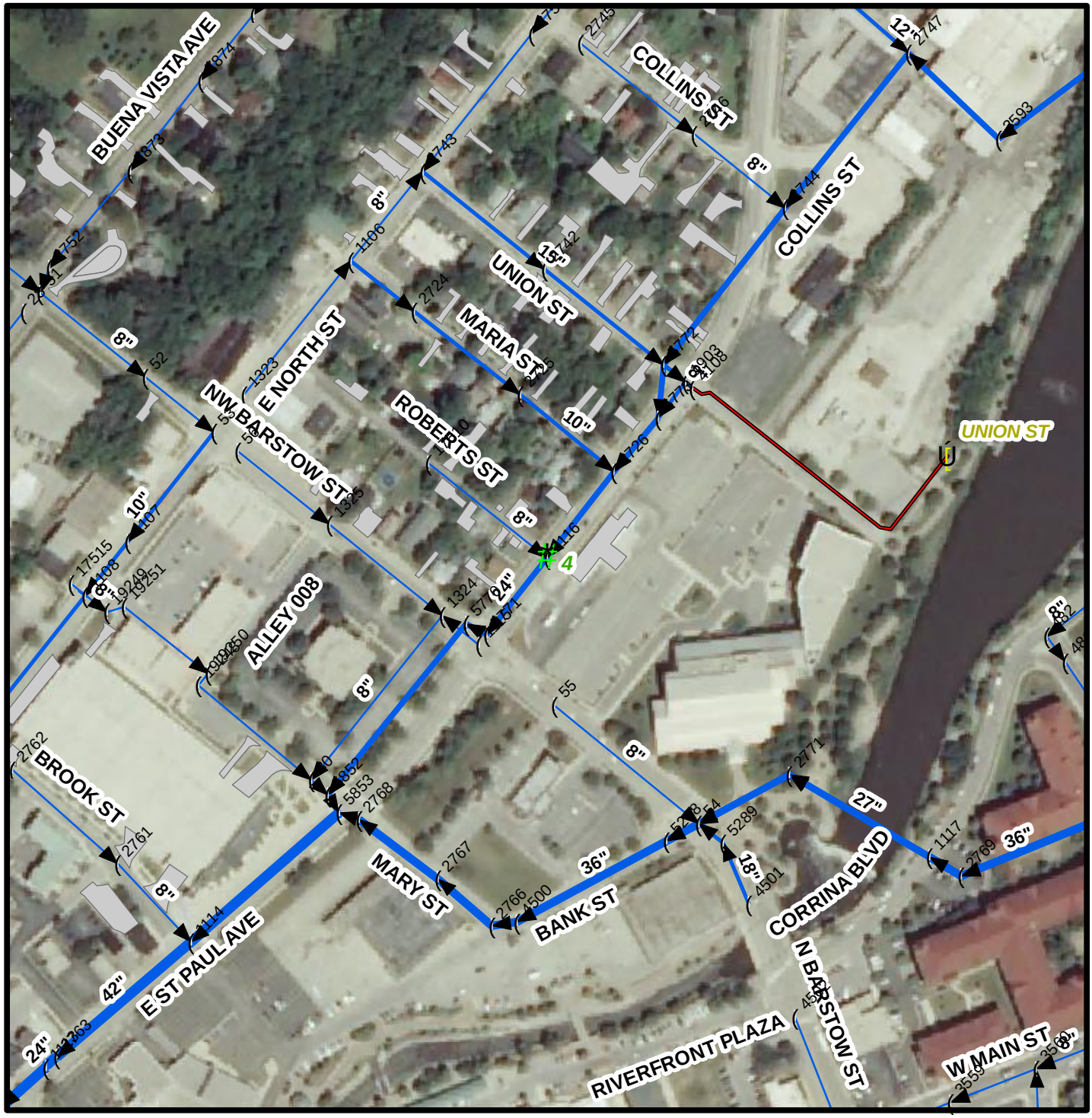
Modeled

4

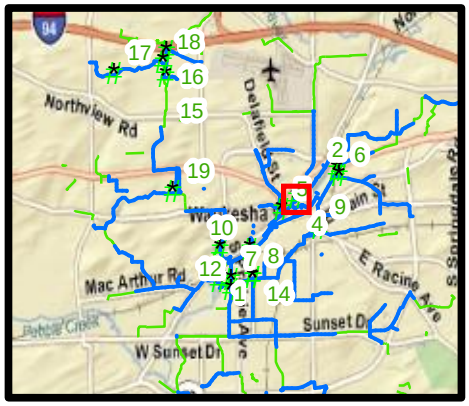
Site # 2

Sanitary Sewer Master Plan
February 26, 2009

Flow Monitoring Sites



1 inch equals 250 feet



Flow Meter Sites

Lift Station

Public

Private

Force Mains

Not Modeled

Modeled

4

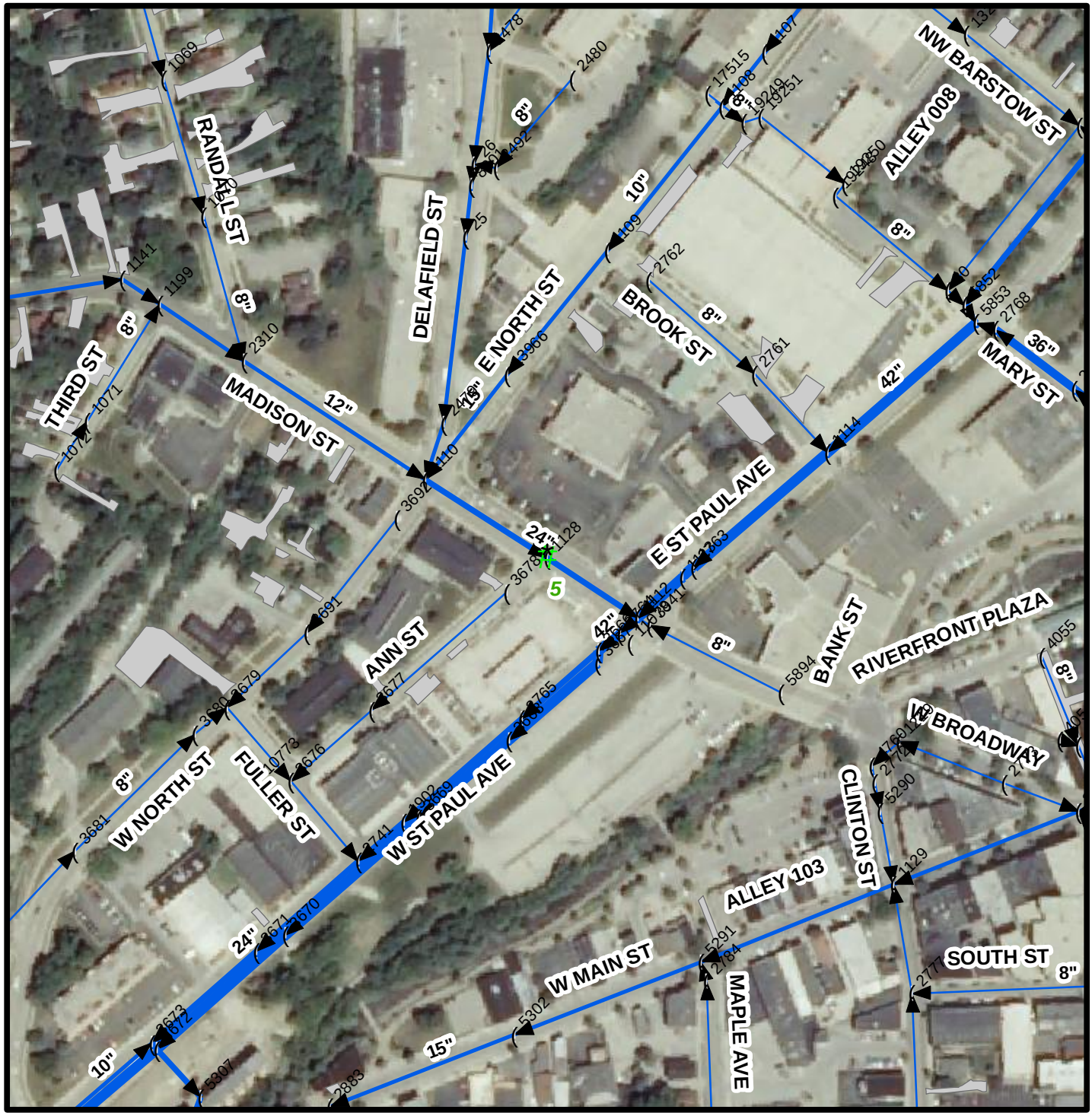
Site # 4

Sanitary Sewer Master Plan
February 26, 2009

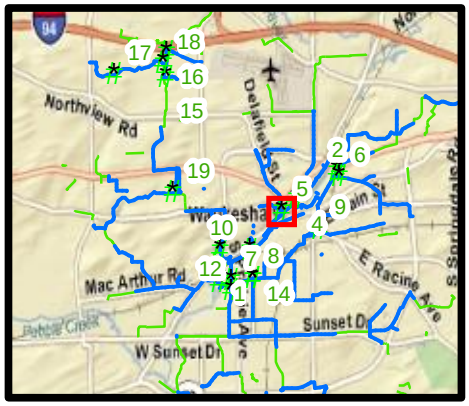
City of Waukesha

DONOHUE & ASSOCIATES

Flow Monitoring Sites



1 inch equals 250 feet



Flow Meter Sites

Lift Station

- Public
- Private

Force Mains

- Not Modeled
- Modeled

4

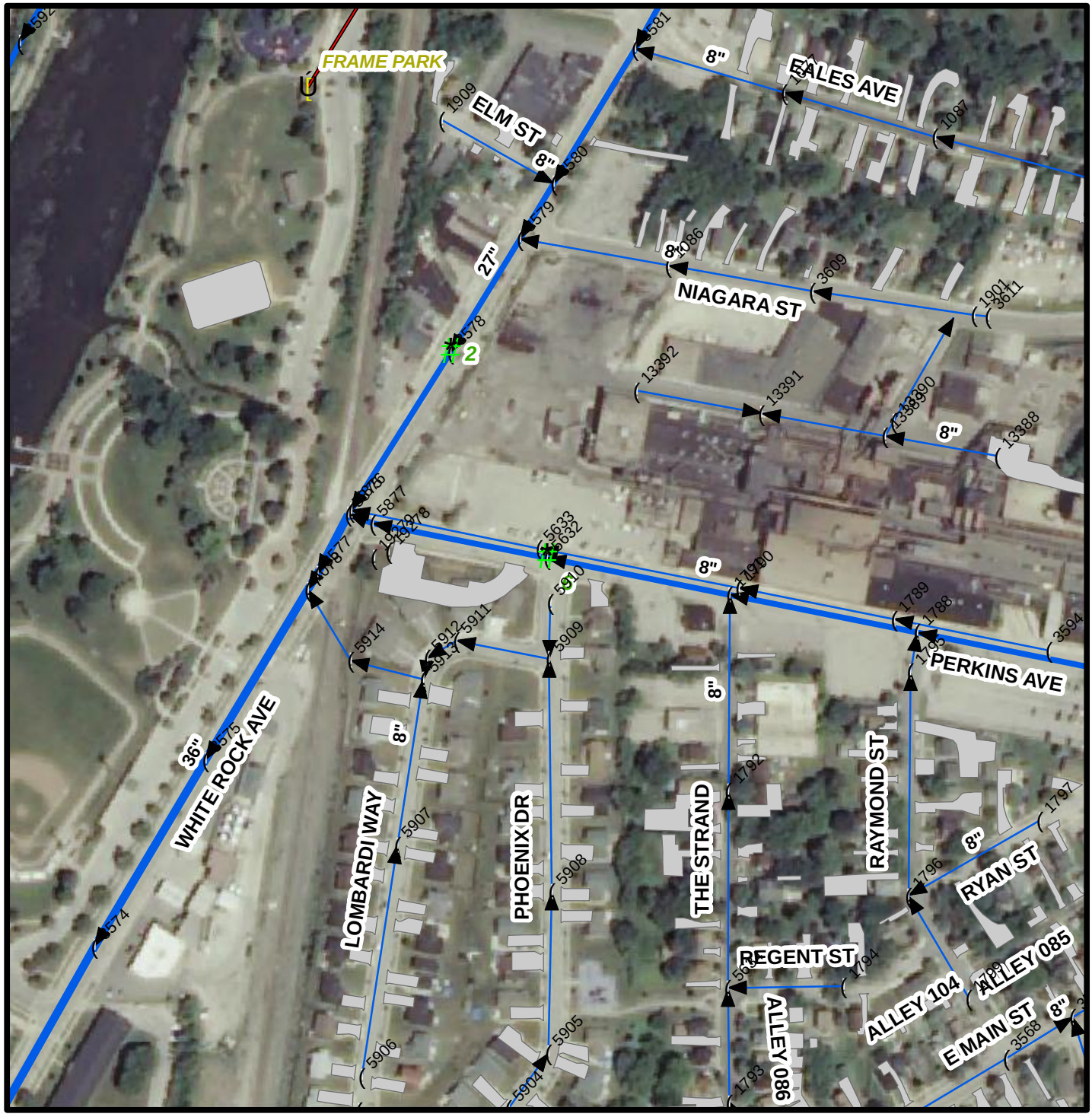
Site # 5

Sanitary Sewer Master Plan
February 26, 2009

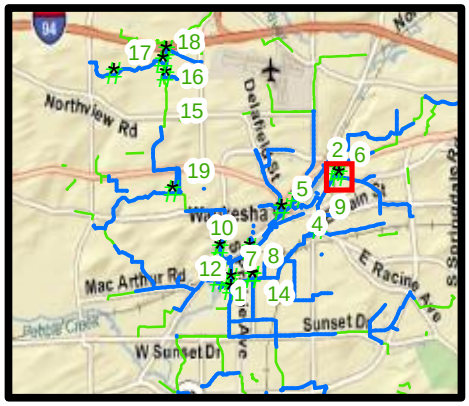
City of Waukesha

DONOHUE & ASSOCIATES

Flow Monitoring Sites



1 inch equals 250 feet



Flow Meter Sites

Lift Station

- Public
- Private

Force Mains

- Not Modeled
- Modeled

4

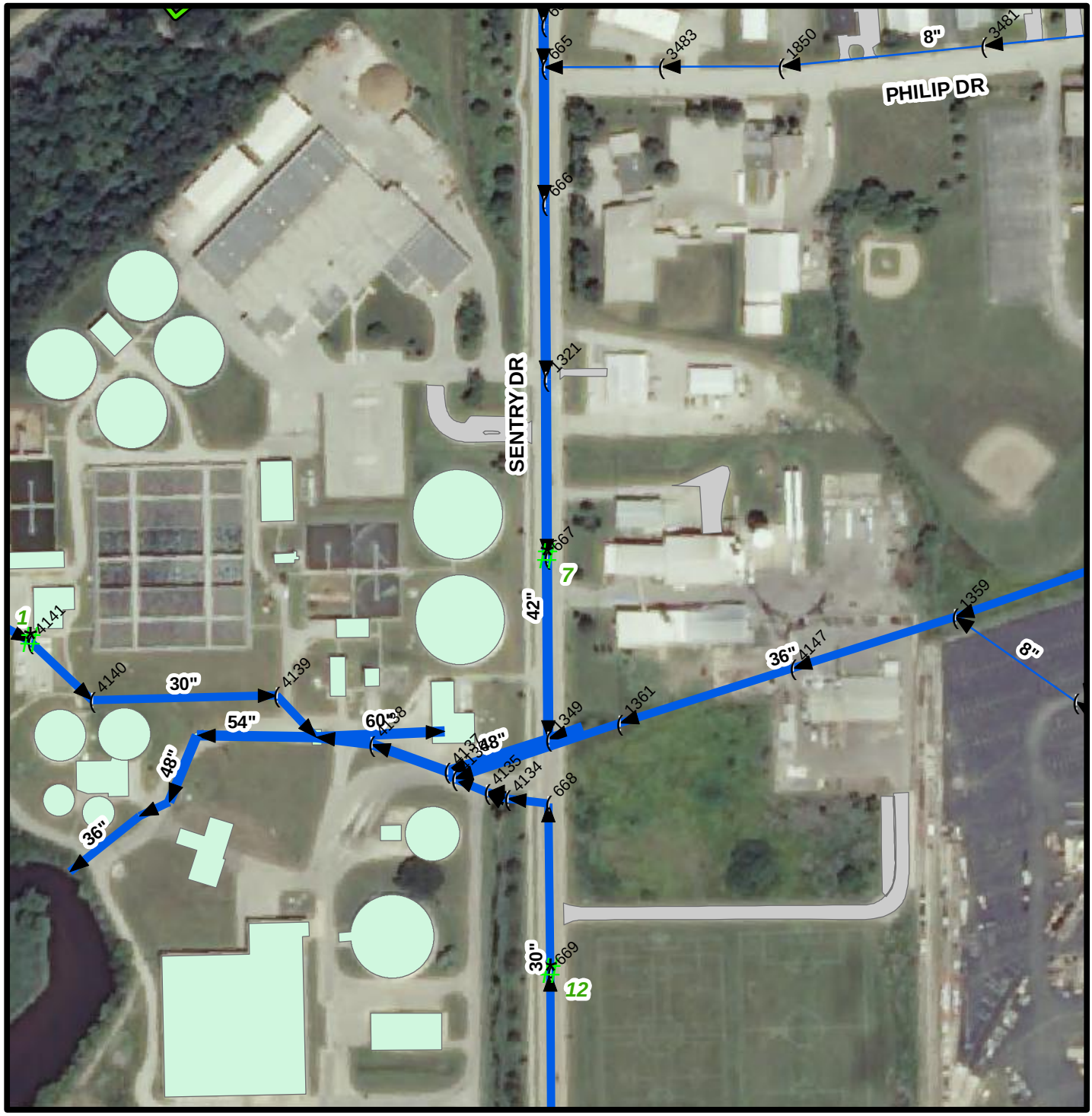
Site # 6

Sanitary Sewer Master Plan
February 26, 2009

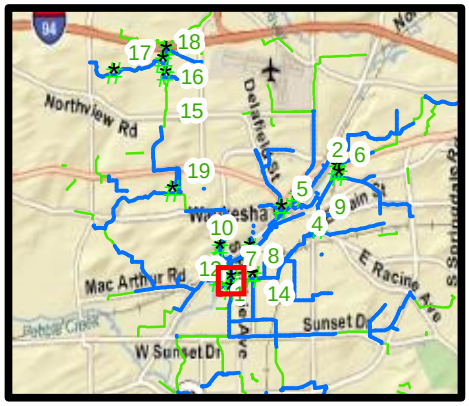
City of Waukesha

DONOHUE & ASSOCIATES

Flow Monitoring Sites



1 inch equals 250 feet



- Flow Meter Sites

Lift Station

- Public
- Private

Force Mains

- Not Modeled
- Modeled

4

Site # 7

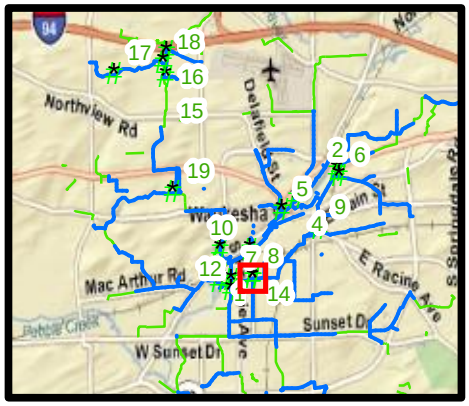
Sanitary Sewer Master Plan
February 26, 2009

City of Waukesha

DONOHUE & ASSOCIATES

Flow Monitoring Sites

1 inch equals 250 feet



Flow Meter Sites

Lift Station

- Public
- Private

Force Mains

- Not Modeled
- Modeled

4

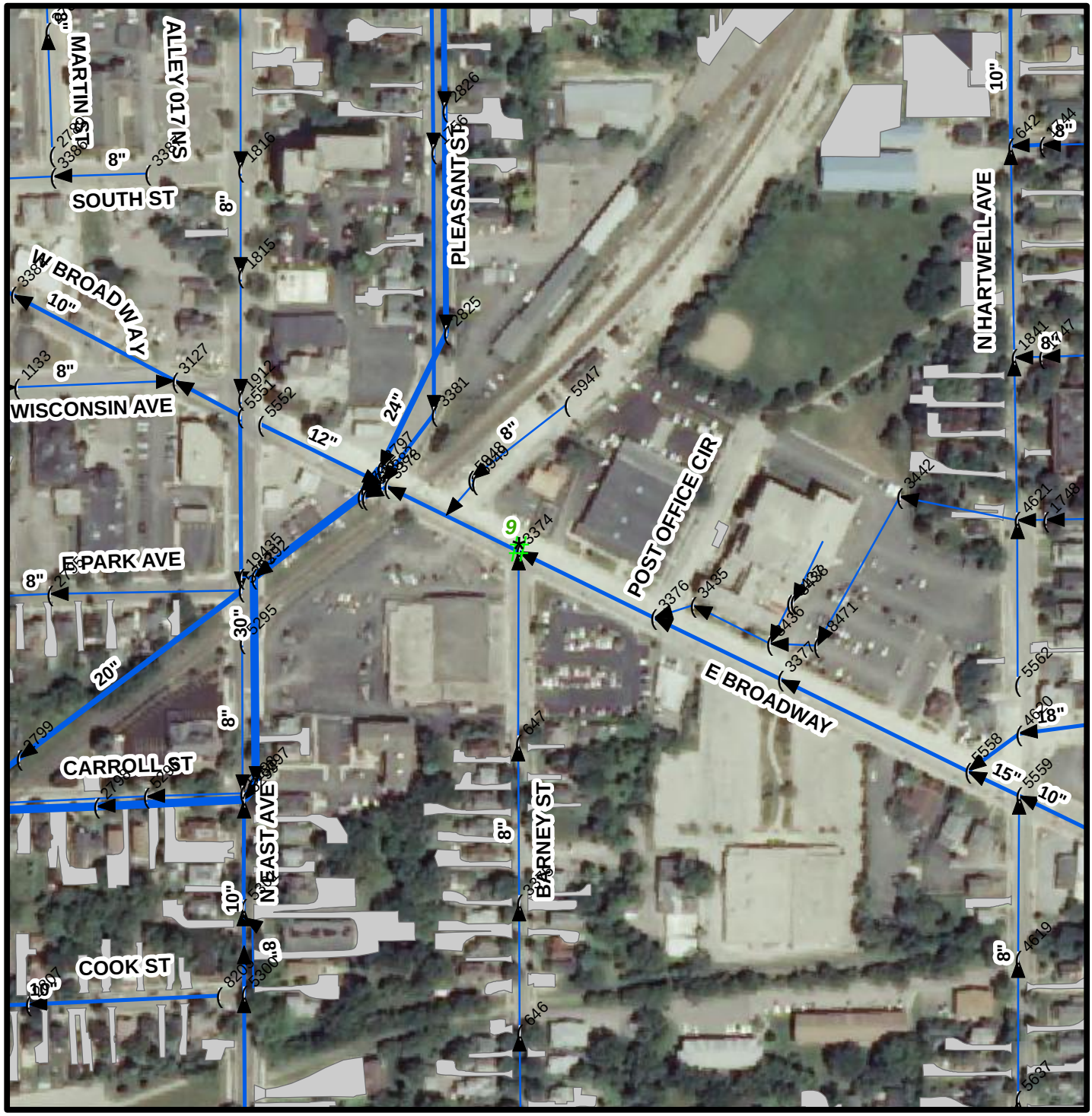
Site # 8

Sanitary Sewer Master Plan
February 26, 2009

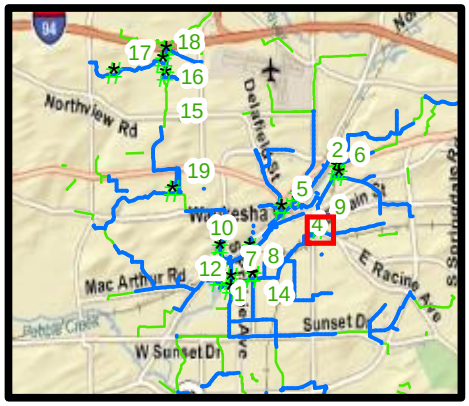
City of Waukesha

DONOHUE & ASSOCIATES

Flow Monitoring Sites



1 inch equals 250 feet



Flow Meter Sites

Lift Station

Public

Private

Force Mains

Not Modeled

Modeled

4

Site # 9

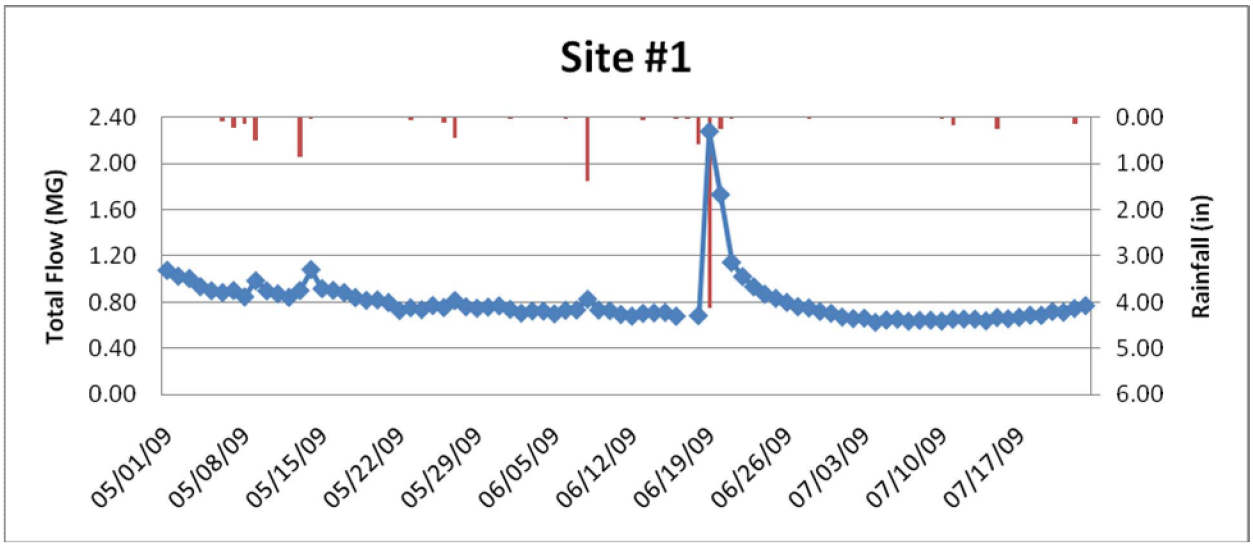
Sanitary Sewer Master Plan
February 26, 2009

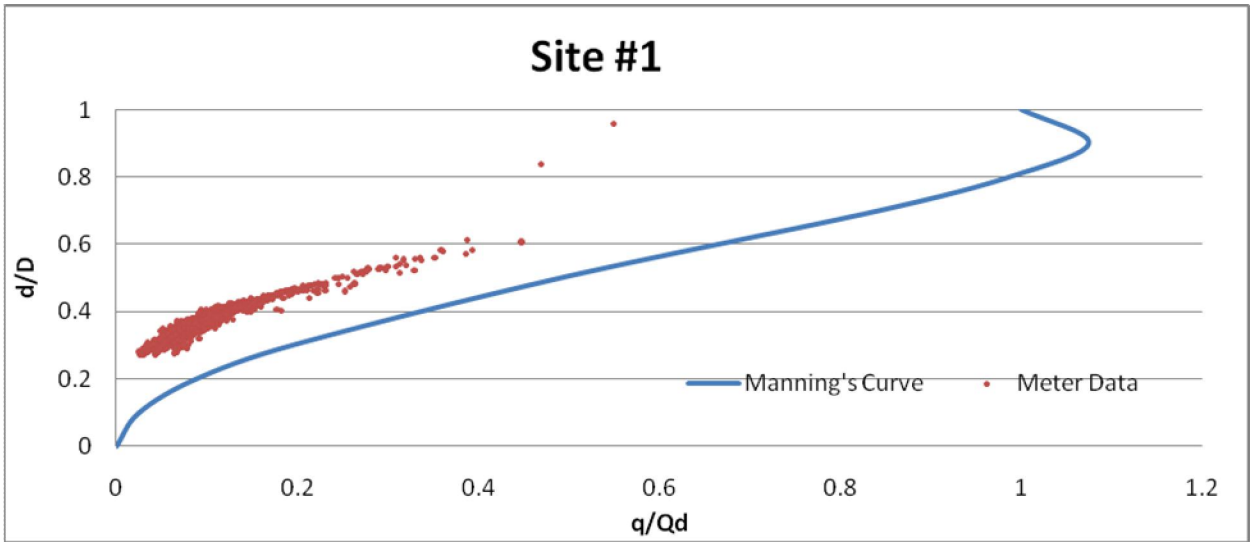
City of Waukesha

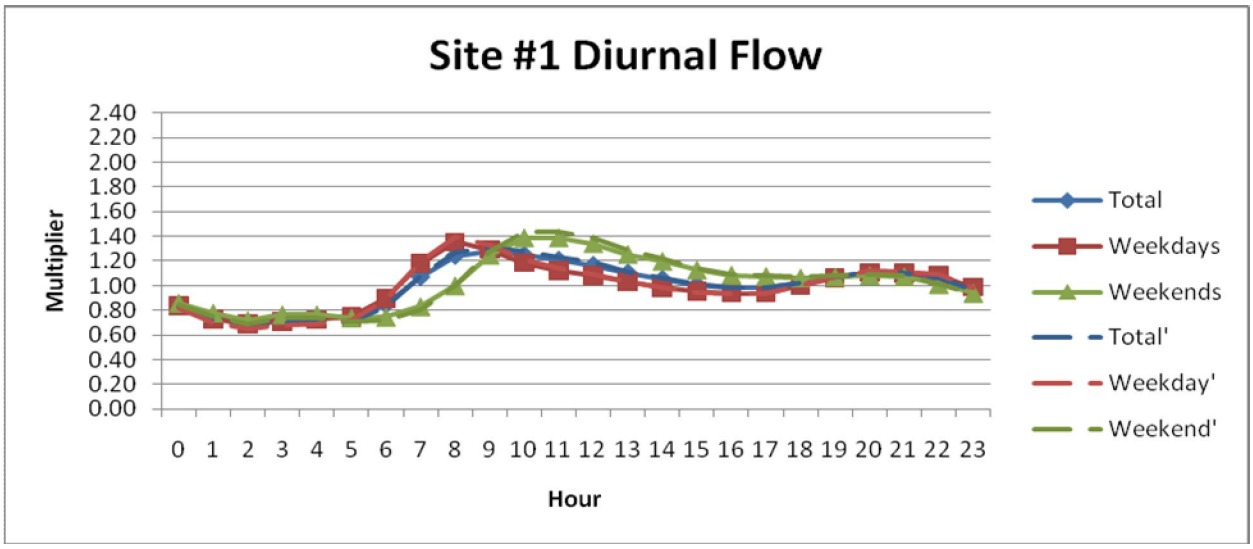
DONOHUE & ASSOCIATES

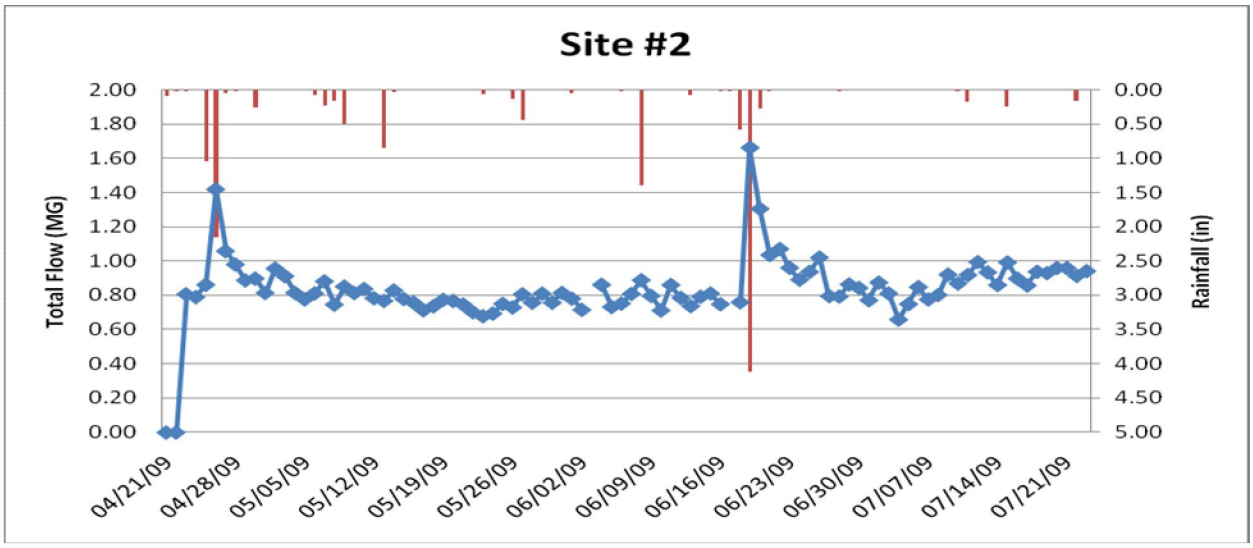
Appendix D

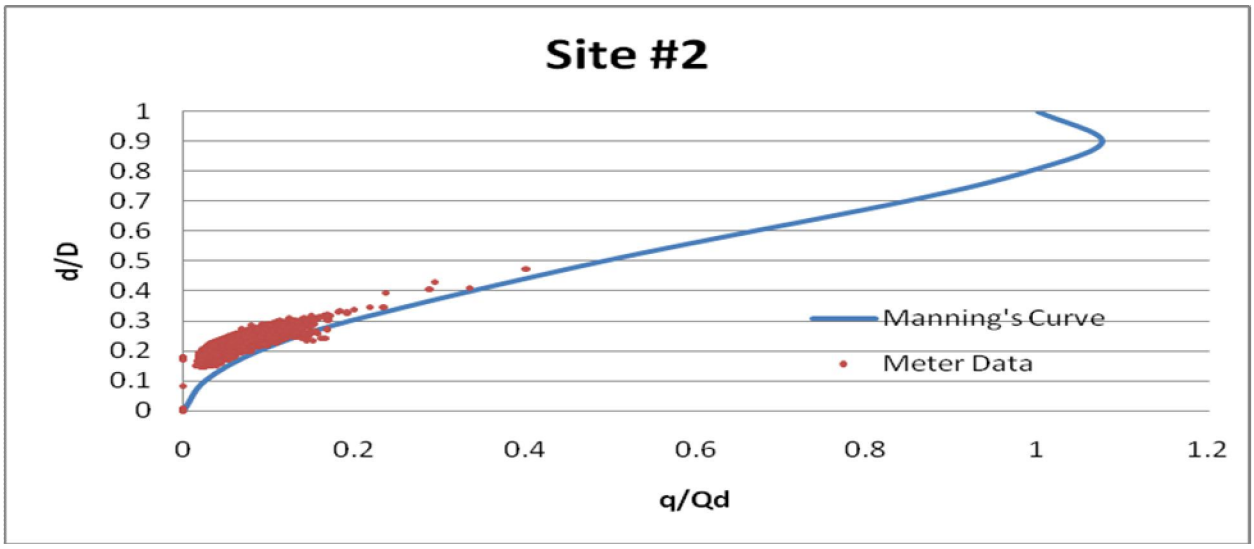
Flow Data Summary

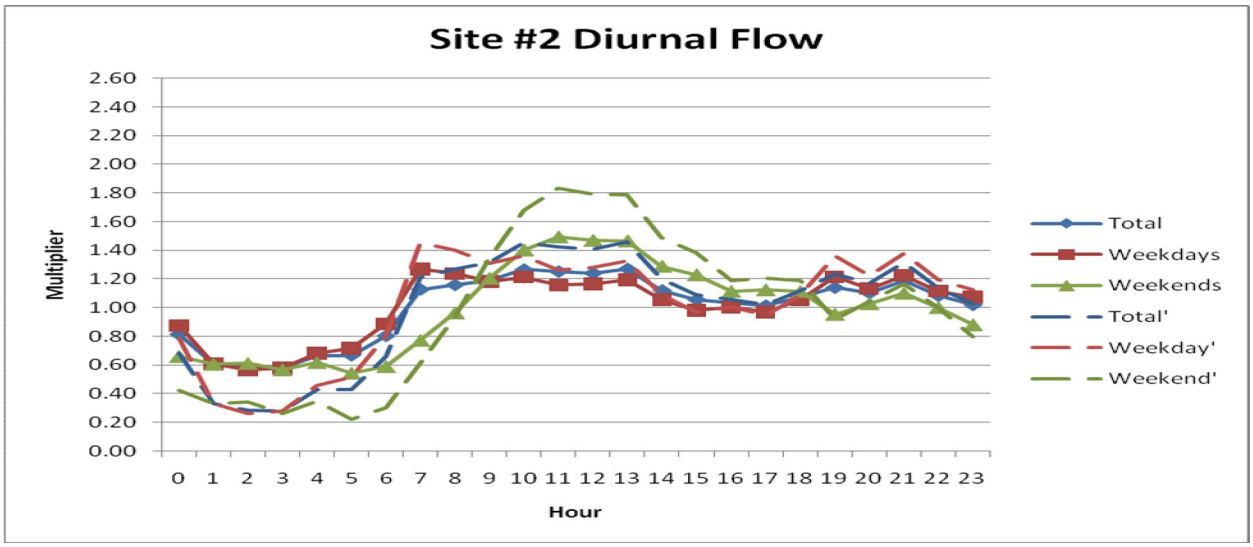

Site #1
Total Flow (MG)
Rainfall (in)
2.40
2.00
1.60
1.20
0.80
0.40
0.00
0.00
1.00
2.00
3.00
4.00
5.00
6.00
05/01/09
05/08/09
05/15/09
05/22/09
05/29/09
06/05/09
06/12/09
06/19/09
06/26/09
07/03/09
07/10/09
07/17/09

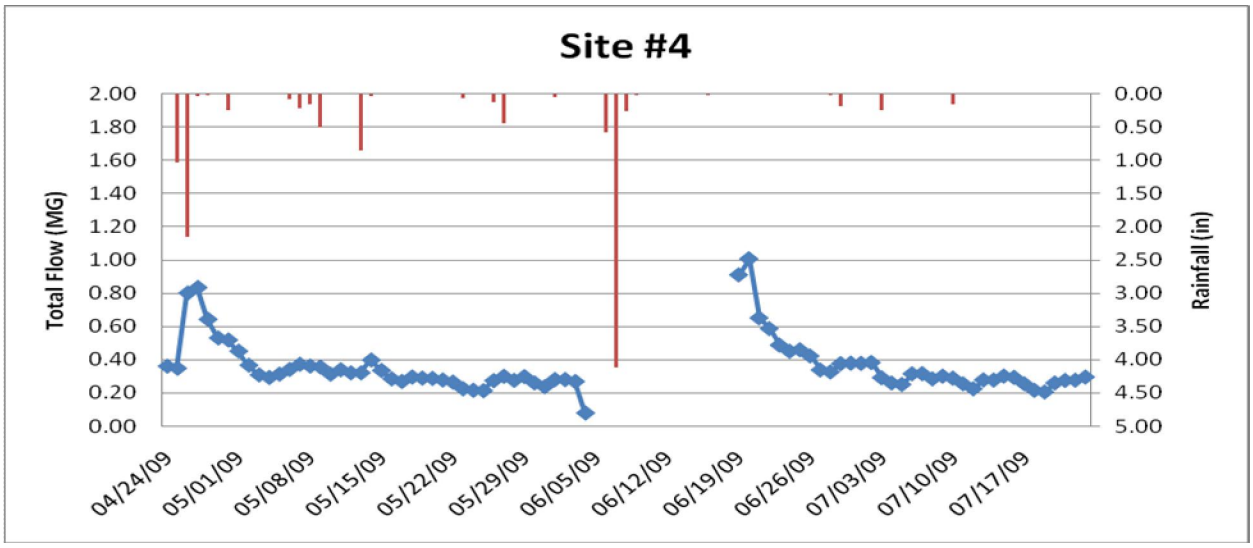

Site #1
d/D
q/Qd
1
0.8
0.6
0.4
0.2
0
0
0.2
0.4
0.6
0.8
1
1.2
Manning's Curve
Meter Data


Site #1 Diurnal Flow
Multiplier
Hour
2.40
2.20
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Total
Weekdays
Weekends
Total'
Weekday'
Weekend'


Site #2
Total Flow (MG)
Rainfall (in)
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0.00
0.50
1.00
1.50
2.00
2.50
3.00
3.50
4.00
4.50
5.00
04/21/09
04/28/09
05/05/09
05/12/09
05/19/09
05/26/09
06/02/09
06/09/09
06/16/09
06/23/09
06/30/09
07/07/09
07/14/09
07/21/09


Site #2
d/D
q/Qd
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
0.2
0.4
0.6
0.8
1
1.2
Manning's Curve
Meter Data


Site #2 Diurnal Flow
Multiplier
Hour
2.60
2.40
2.20
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Total
Weekdays
Weekends
Total'
Weekday'
Weekend'


Site #4
Total Flow (MG)
Rainfall (in)
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0.00
0.50
1.00
1.50
2.00
2.50
3.00
3.50
4.00
4.50
5.00
04/24/09
05/01/09
05/08/09
05/15/09
05/22/09
05/29/09
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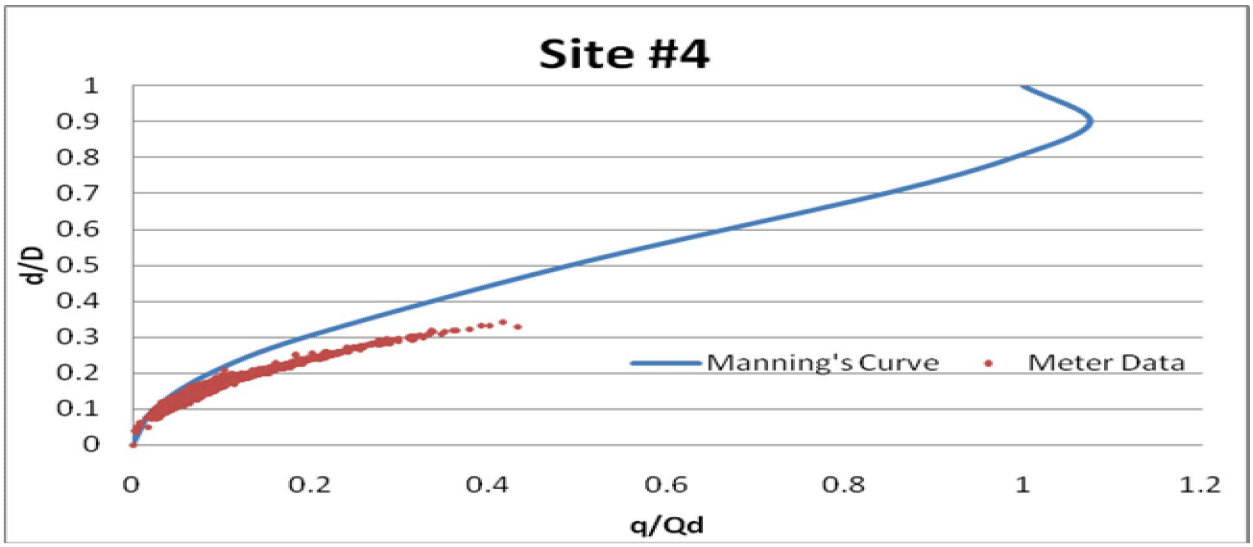
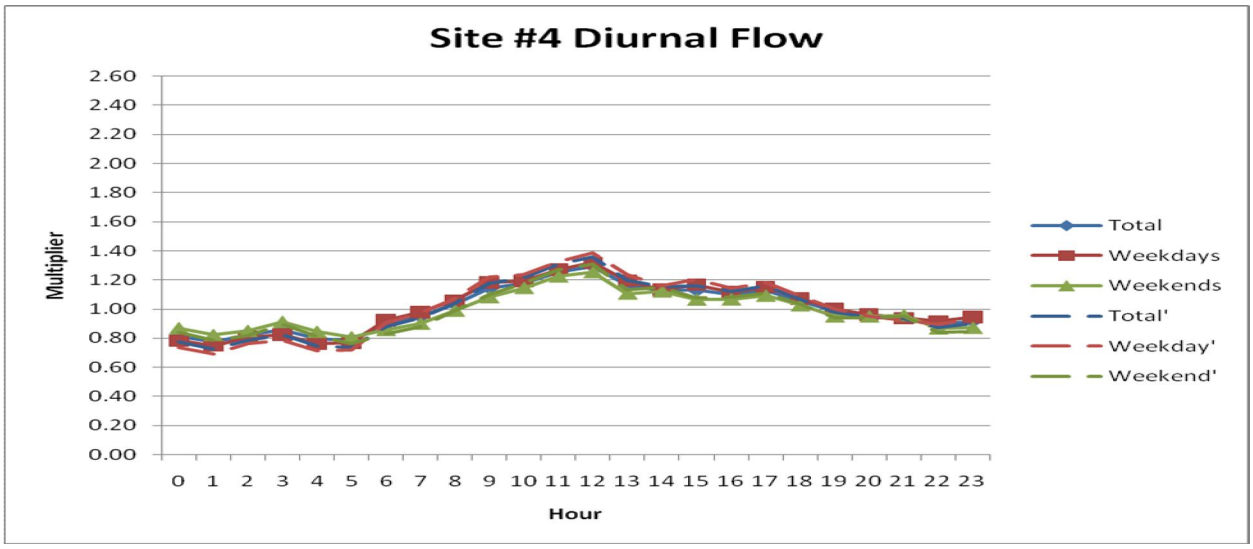
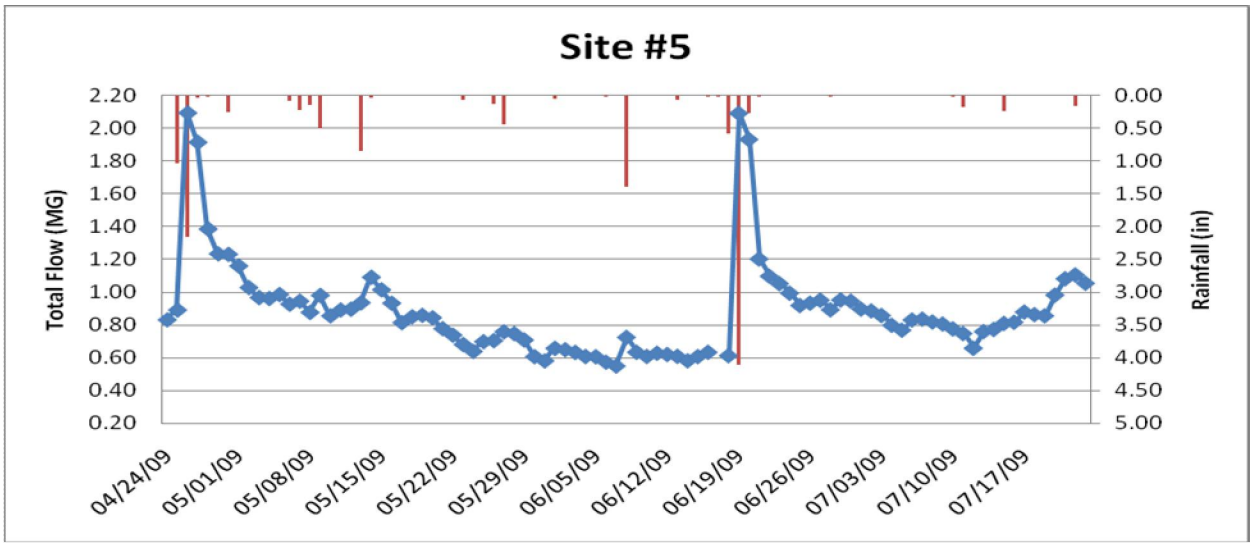
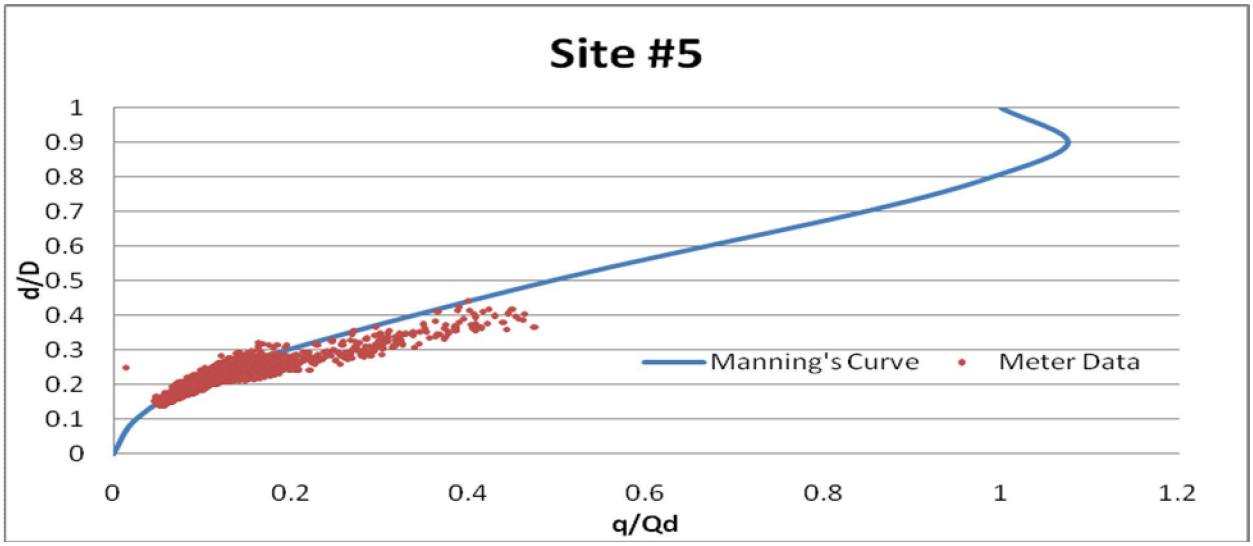
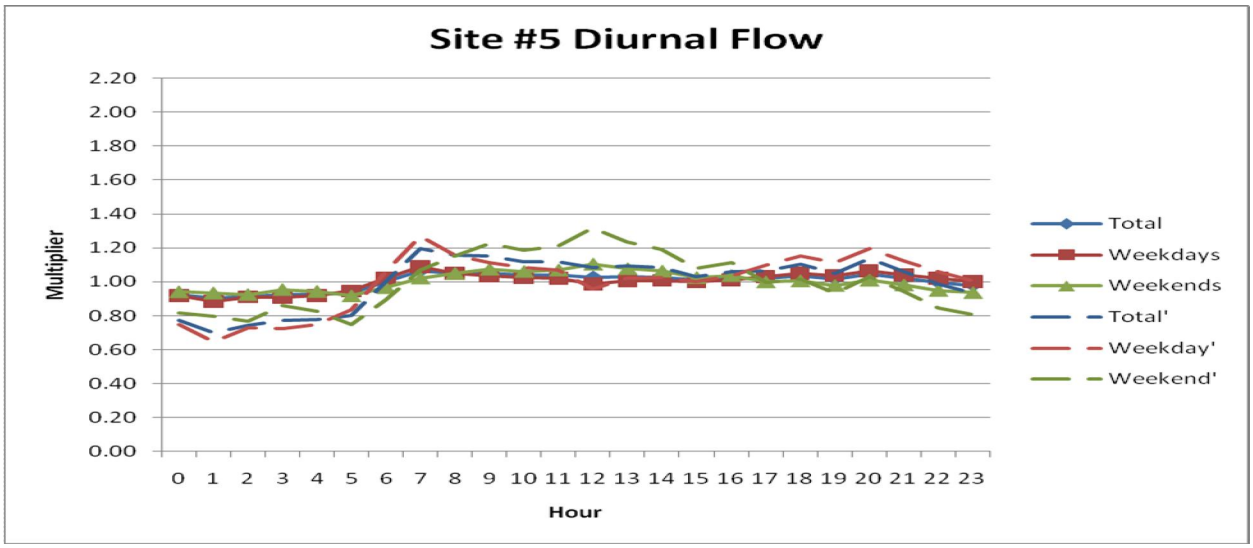
06/26/09
07/03/09
07/10/09
07/17/09

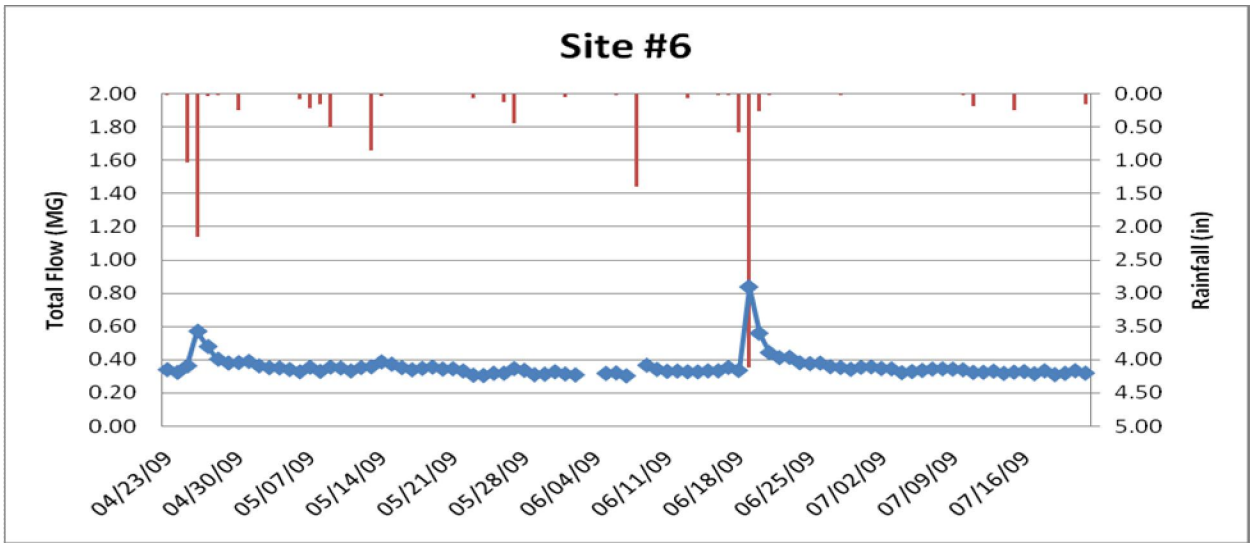

Site #4
d/D
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
0.2
0.4
0.6
0.8
1
1.2
q/Qd
Manning's Curve
Meter Data

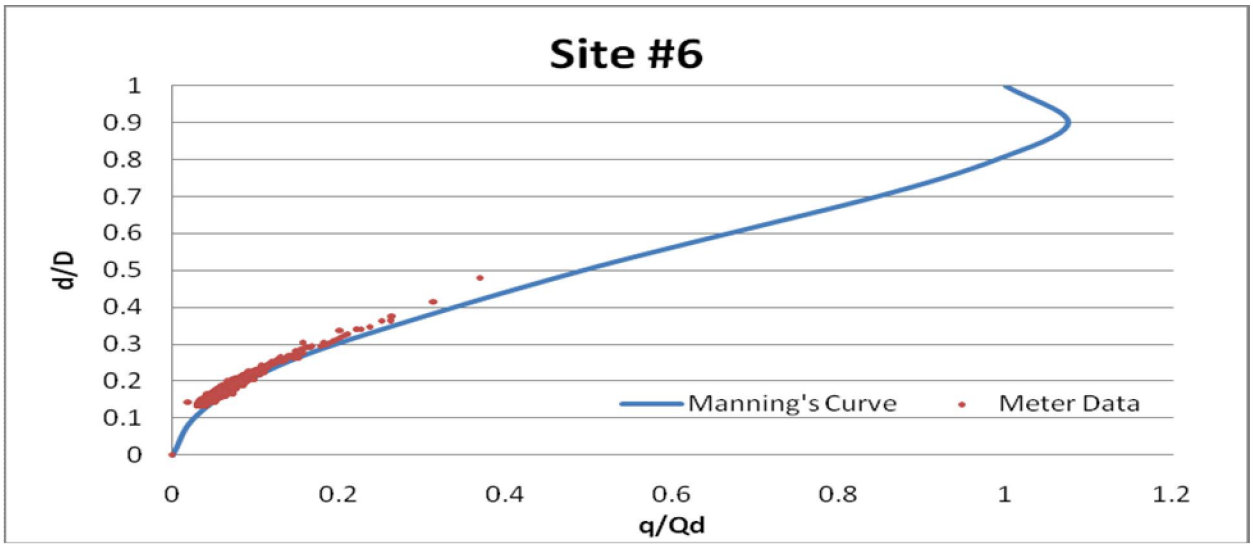

Site #4 Diurnal Flow
Multiplier
2.60
2.40
2.20
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Hour
Total
Weekdays
Weekends
Total'
Weekday'
Weekend'

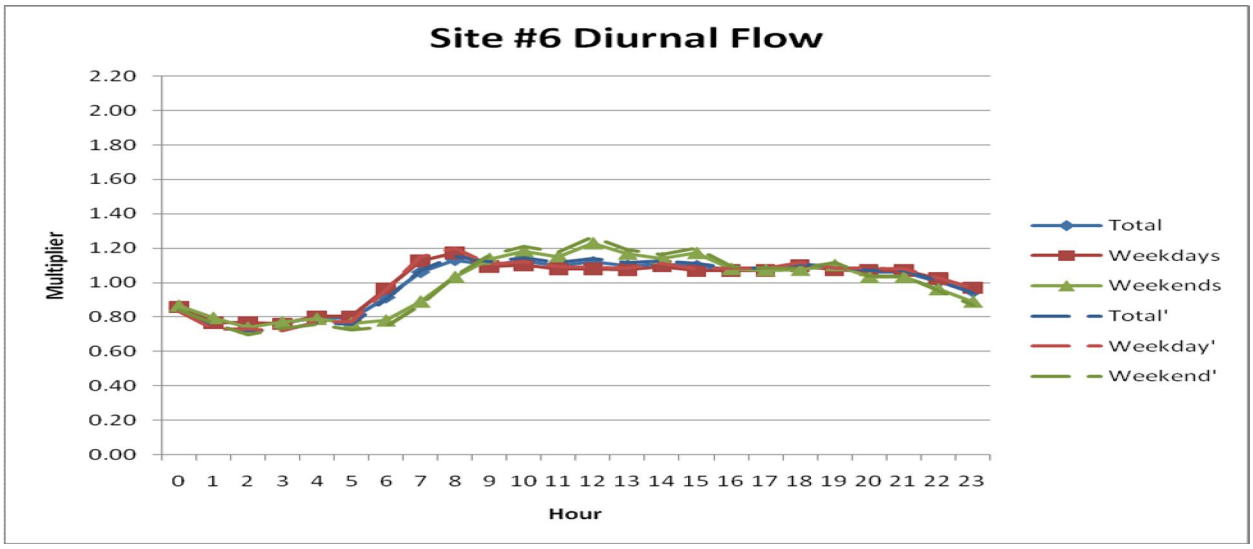

Site #5
Total Flow (MG)
Rainfall (in)
2.20
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0.50
1.00
1.50
2.00
2.50
3.00
3.50
4.00
4.50
5.00
04/24/09
05/01/09
05/08/09
05/15/09
05/22/09
05/29/09
06/05/09
06/12/09
06/19/09
06/26/09
07/03/09
07/10/09
07/17/09

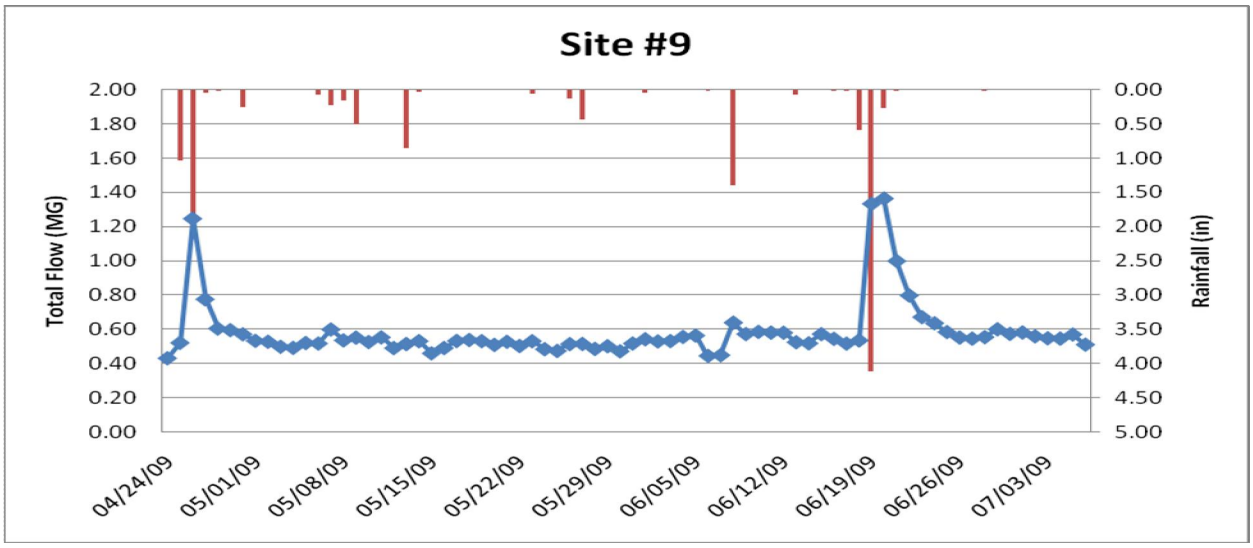

Site #5
d/D
q/Qd
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0.2
0.4
0.6
0.8
1.2
Manning's Curve
Meter Data

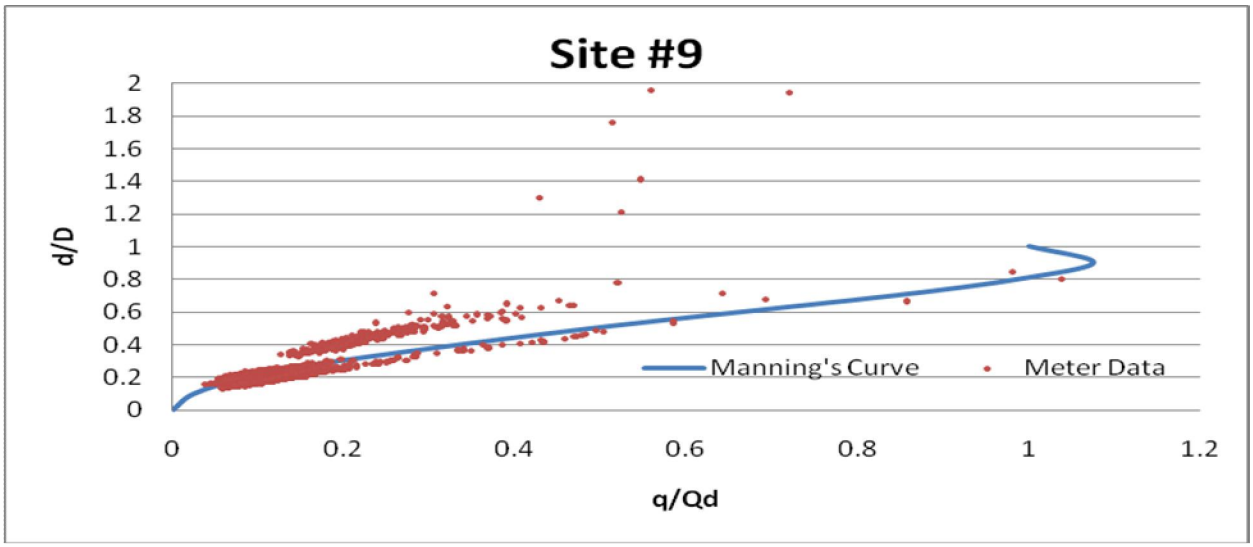

Site #5 Diurnal Flow
Multiplier
Hour
2.20
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Total
Weekdays
Weekends
Total'
Weekday'
Weekend'

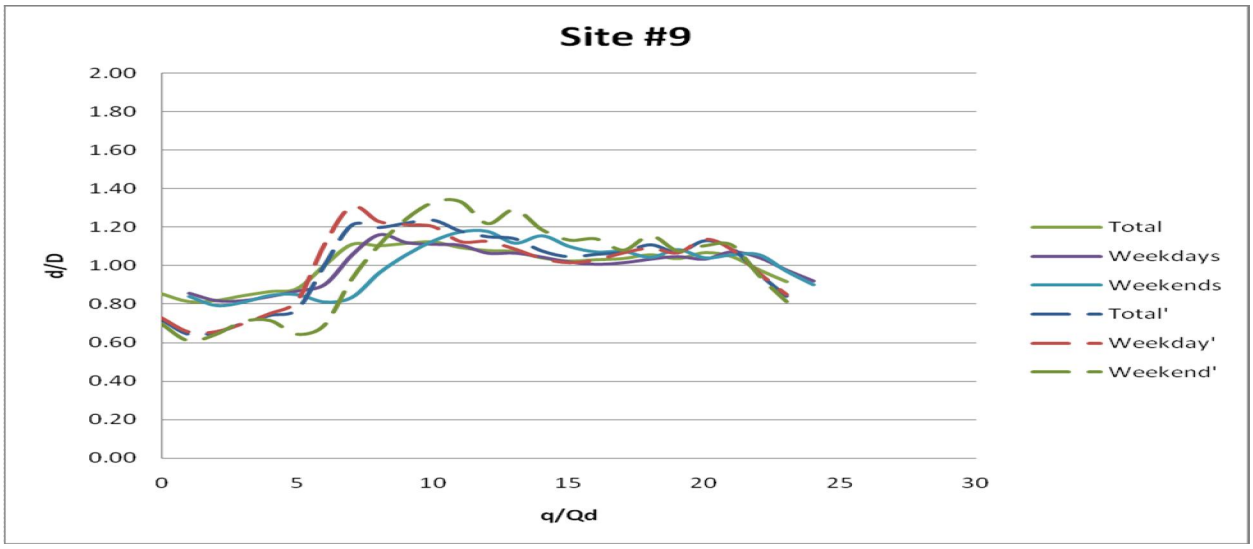

Site #6
Total Flow (MG)
Rainfall (in)
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0.00
0.50
1.00
1.50
2.00
2.50
3.00
3.50
4.00
4.50
5.00
04/23/09
04/30/09
05/07/09
05/14/09
05/21/09
05/28/09
06/04/09
06/11/09
06/18/09
06/25/09
07/02/09
07/09/09
07/16/09

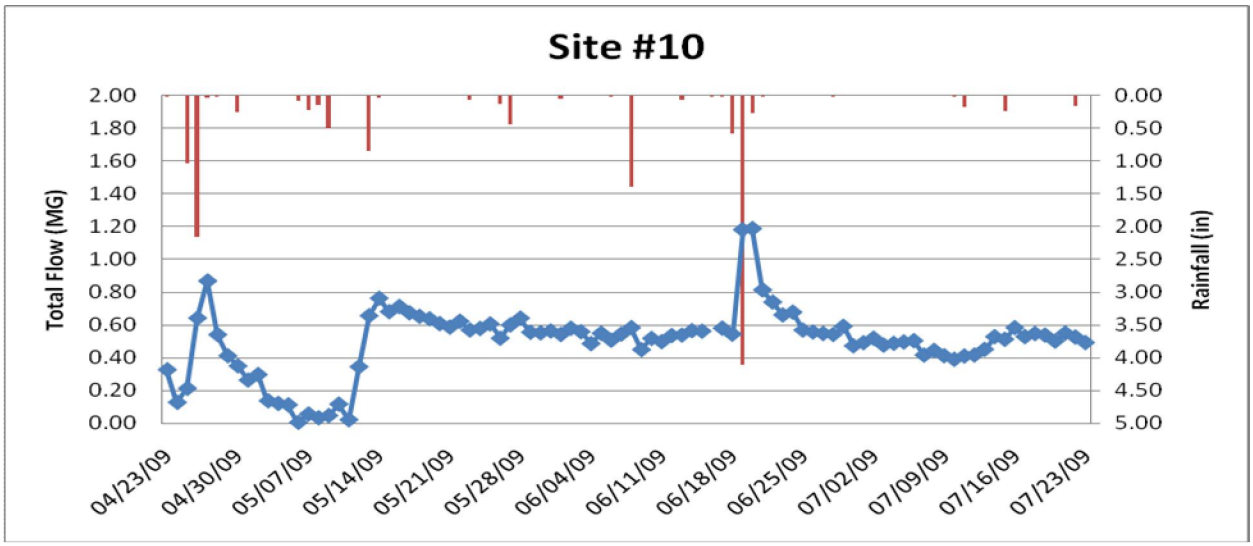

Site #6
d/D
q/Qd
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
0.2
0.4
0.6
0.8
1
1.2
Manning's Curve
Meter Data

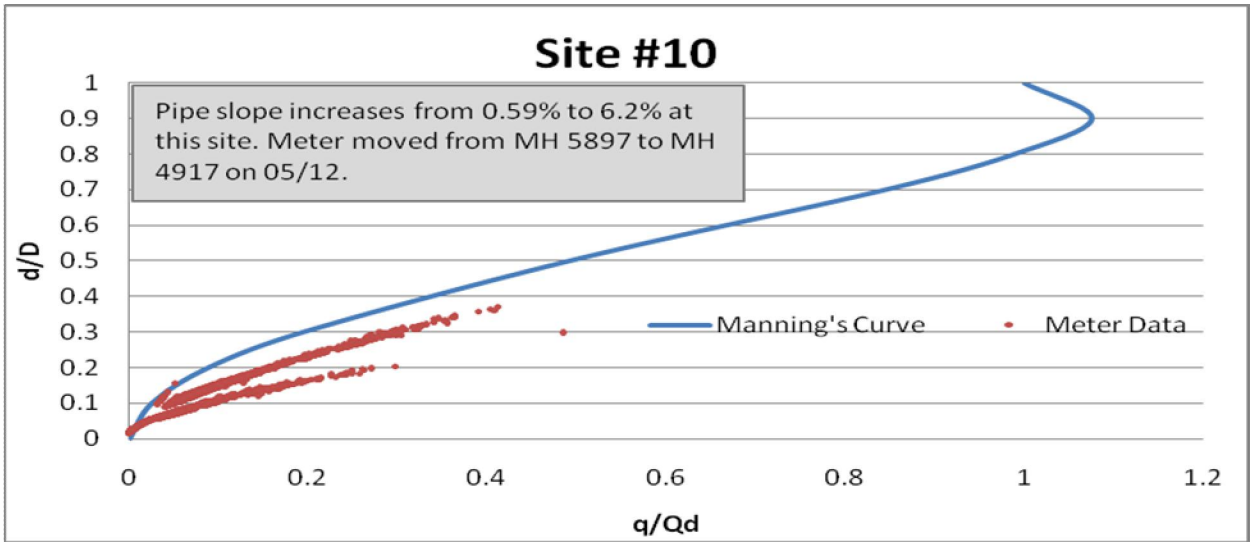

Site #6 Diurnal Flow
Multiplier
Hour
2.20
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Total
Weekdays
Weekends
Total'
Weekday'
Weekend'

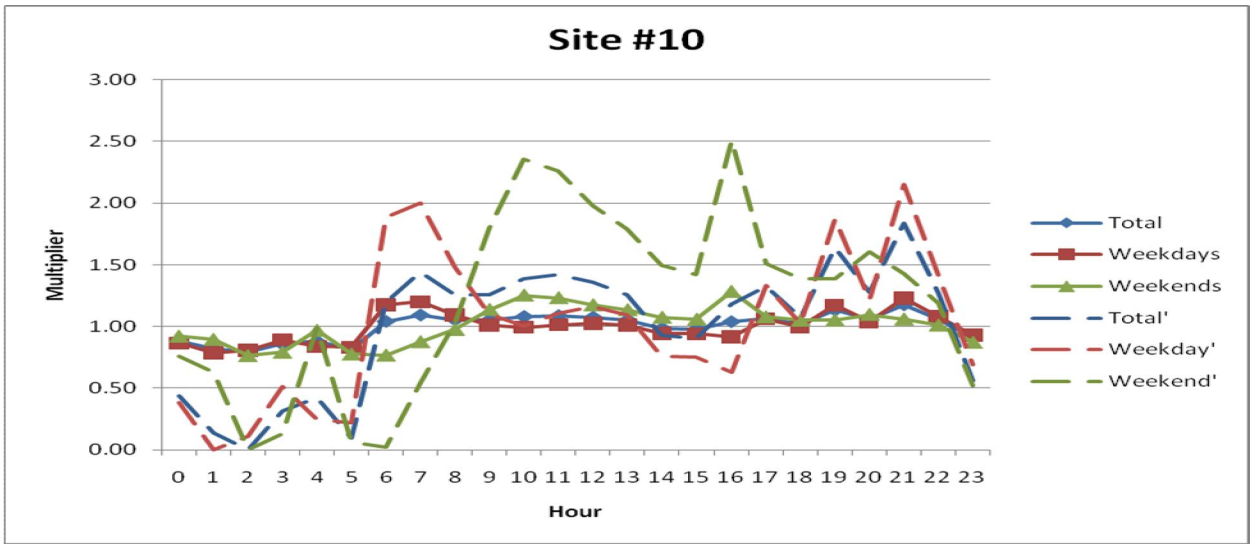

Site #9
Total Flow (MG)
Rainfall (in)
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0.00
0.50
1.00
1.50
2.00
2.50
3.00
3.50
4.00
4.50
5.00
04/24/09
05/01/09
05/08/09
05/15/09
05/22/09
05/29/09
06/05/09
06/12/09
06/19/09
06/26/09
07/03/09

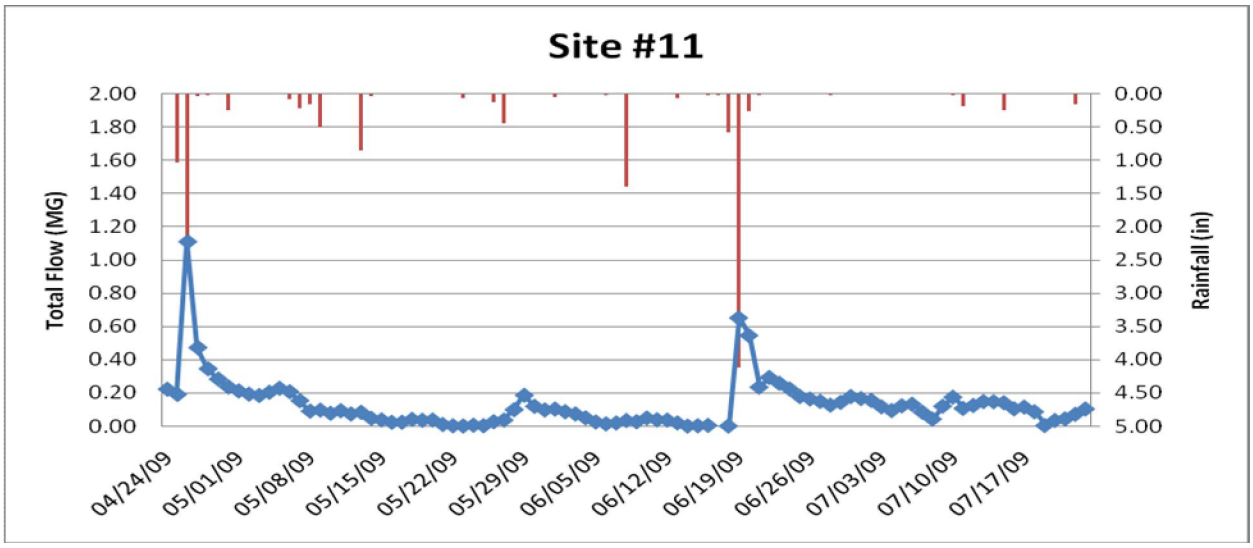

Site #9
d/D
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0
0.2
0.4
0.6
0.8
1
1.2
q/Qd
Manning's Curve
Meter Data

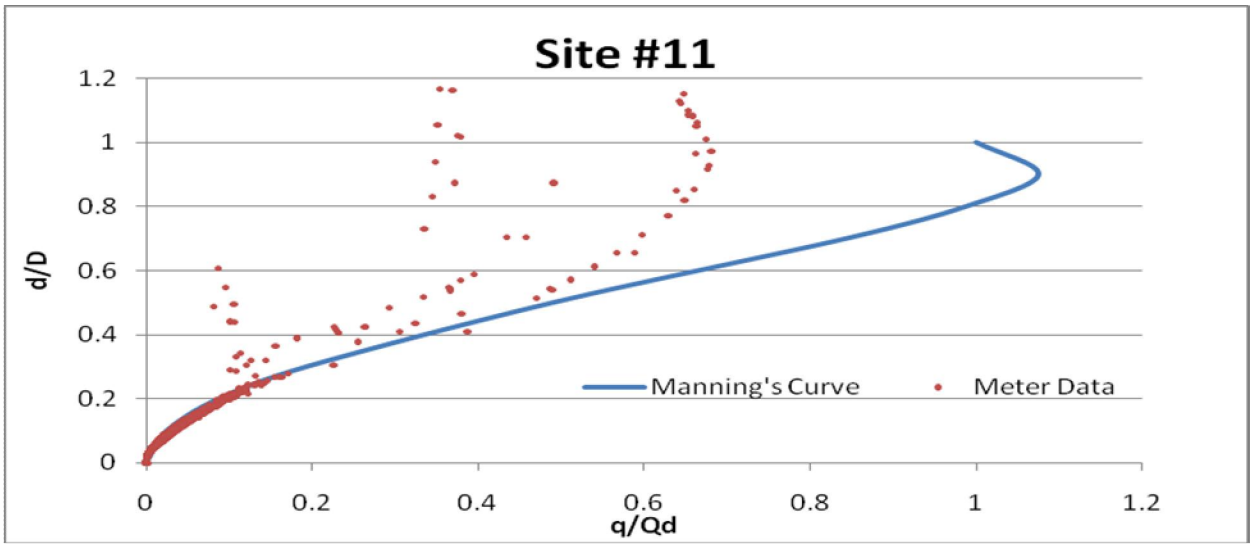

Site #9
d/D
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0
5
10
15
20
25
30
q/Qd
Total
Weekdays
Weekends
Total'
Weekday'
Weekend'

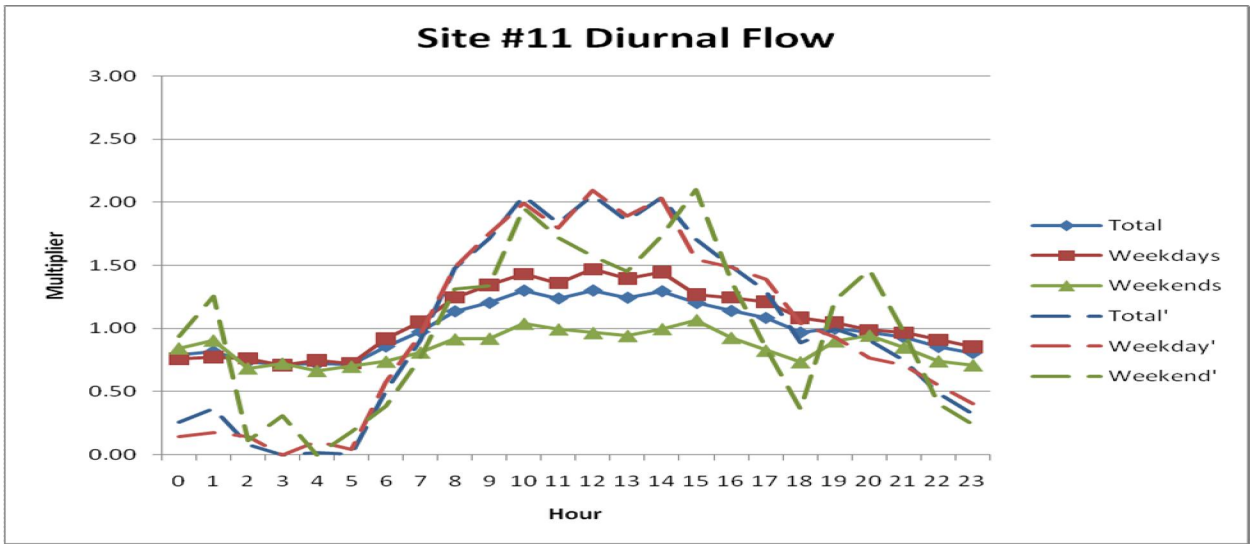

Site #10
Total Flow (MG)
Rainfall (in)
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0.00
0.50
1.00
1.50
2.00
2.50
3.00
3.50
4.00
4.50
5.00
04/23/09
04/30/09
05/07/09
05/14/09
05/21/09
05/28/09
06/04/09
06/11/09
06/18/09
06/25/09
07/02/09
07/09/09
07/16/09
07/23/09

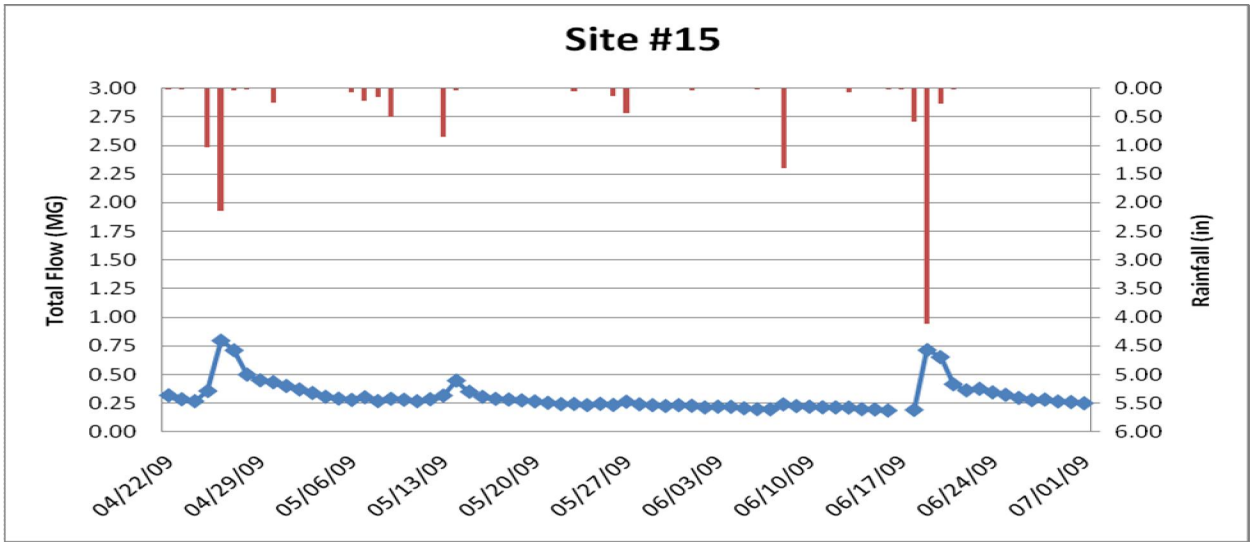

Site #10
Pipe slope increases from 0.59% to 6.2% at this site. Meter moved from MH 5897 to MH 4917 on 05/12.
d/D
q/Qd
Manning's Curve
Meter Data
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
0.2
0.4
0.6
0.8
1
1.2

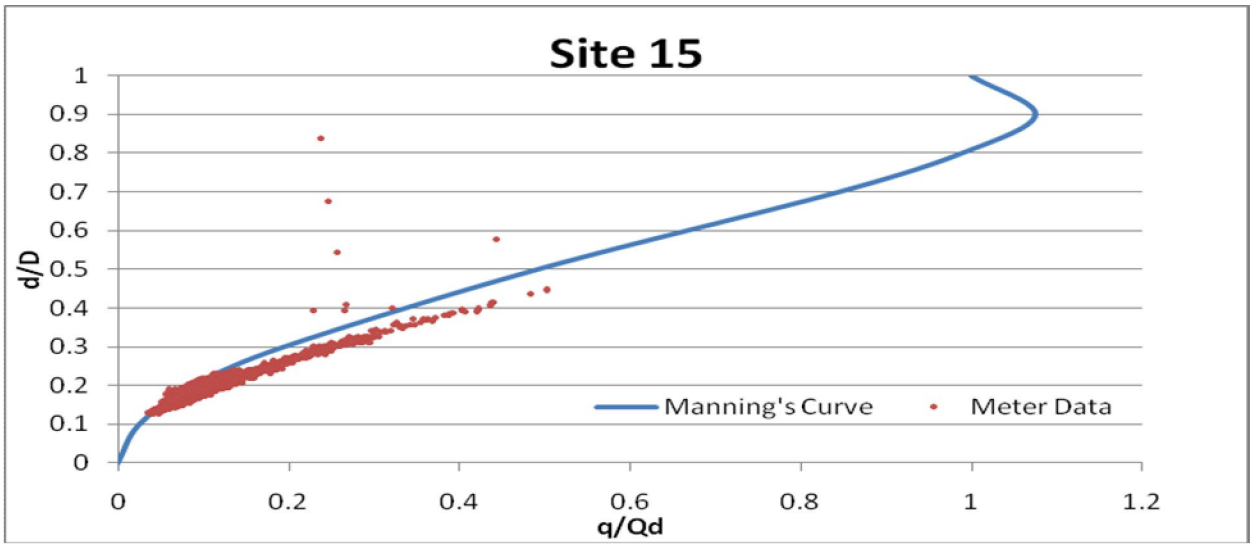

Site #10
Multiplier
Hour
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Total
Weekdays
Weekends
Total'
Weekday'
Weekend'

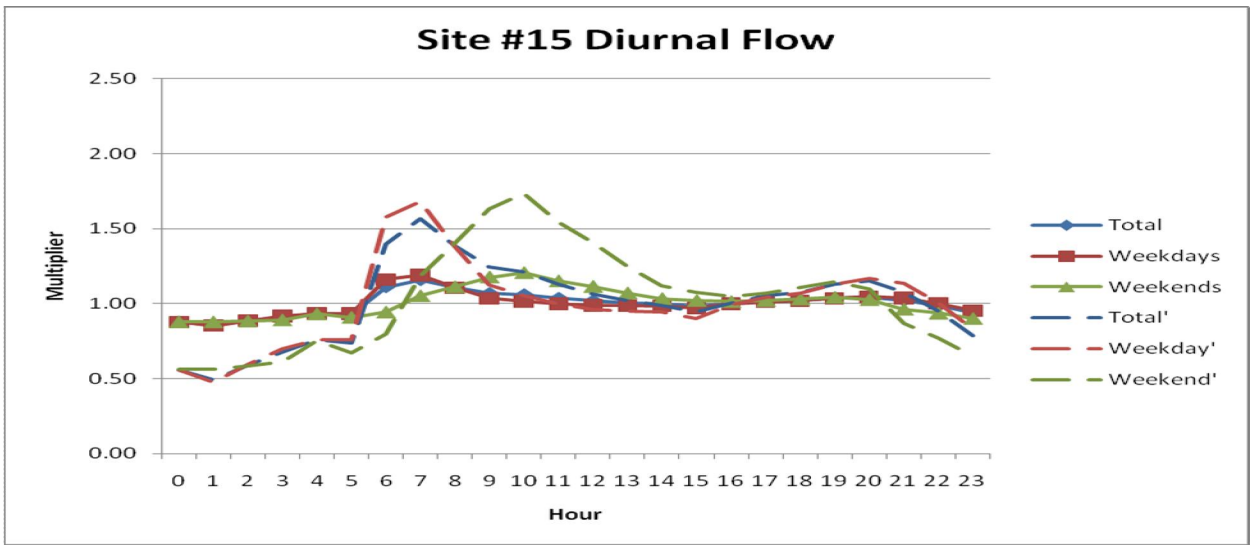

Site #11
Total Flow (MG)
Rainfall (in)
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0.00
0.50
1.00
1.50
2.00
2.50
3.00
3.50
4.00
4.50
5.00
04/24/09
05/01/09
05/08/09
05/15/09
05/22/09
05/29/09
06/05/09
06/12/09
06/19/09
06/26/09
07/03/09
07/10/09
07/17/09

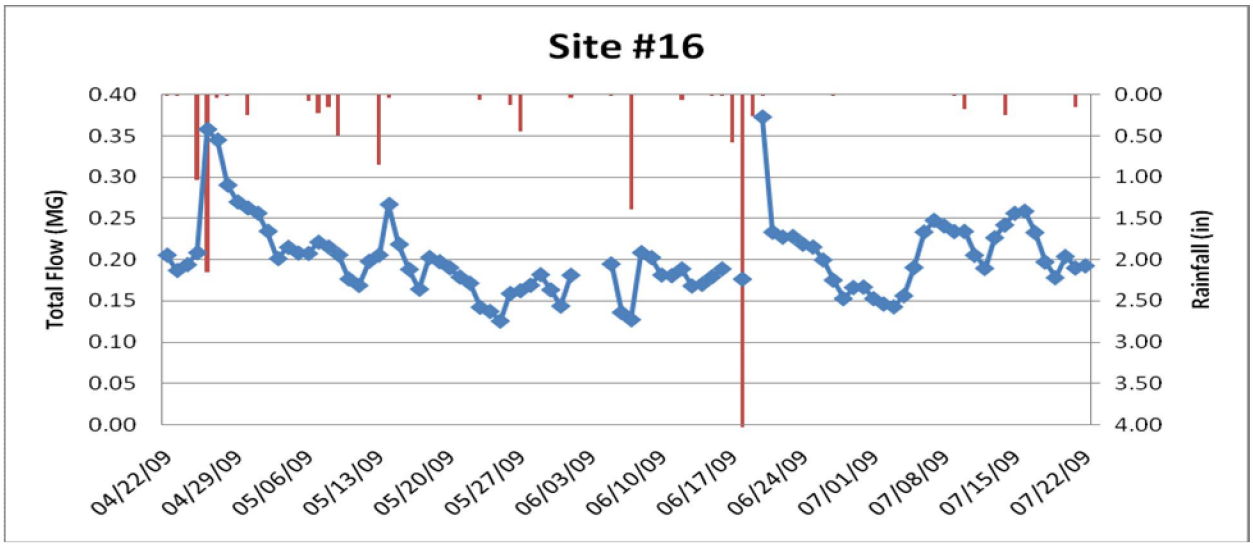

Site #11
d/D
q/Qd
1.2
1
0.8
0.6
0.4
0.2
0
0
0.2
0.4
0.6
0.8
1
1.2
Manning's Curve
Meter Data

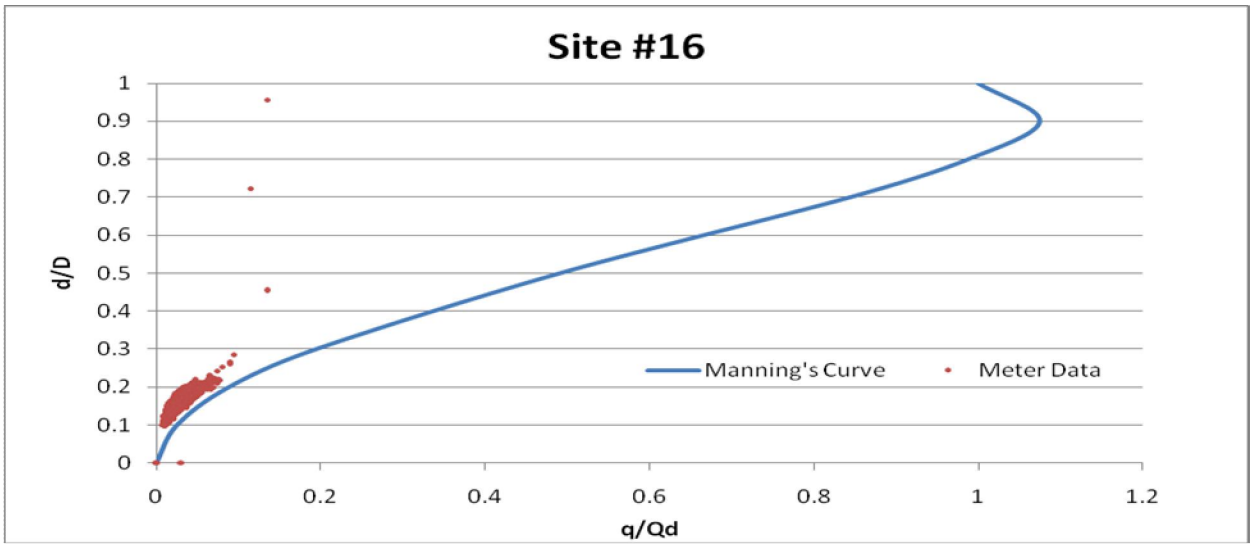

Site #11 Diurnal Flow
Multiplier
Hour
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Total
Weekdays
Weekends
Total'
Weekday'
Weekend'

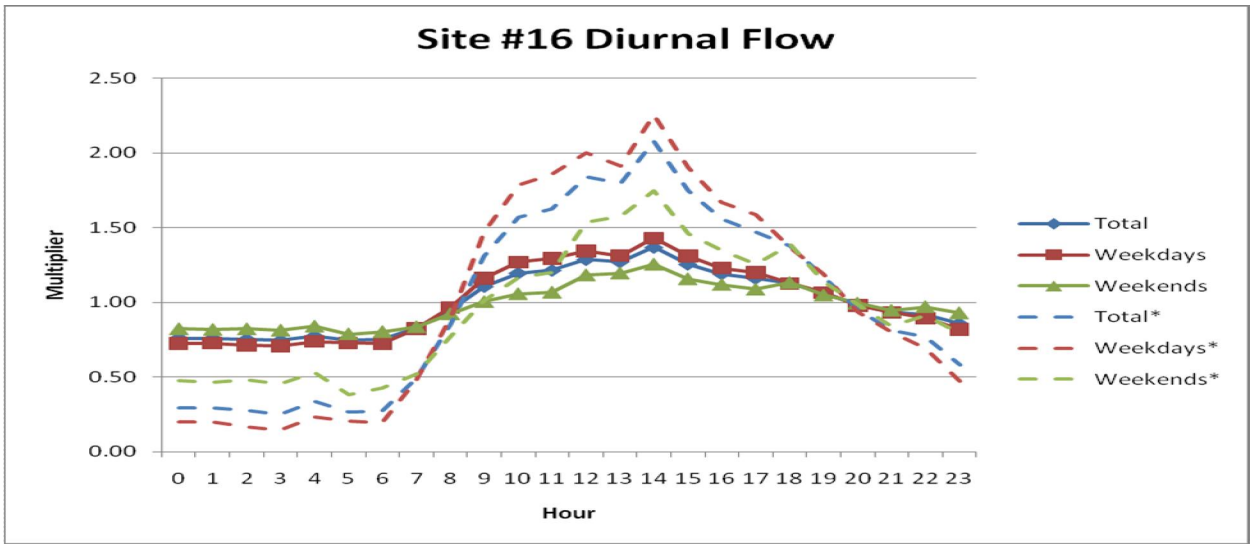

Site #15
Total Flow (MG)
Rainfall (in)
3.00
2.75
2.50
2.25
2.00
1.75
1.50
1.25
1.00
0.75
0.50
0.25
0.00
0.00
0.50
1.00
1.50
2.00
2.50
3.00
3.50
4.00
4.50
5.00
5.50
6.00
04/22/09
04/29/09
05/06/09
05/13/09
05/20/09
05/27/09
06/03/09
06/10/09
06/17/09
06/24/09
07/01/09

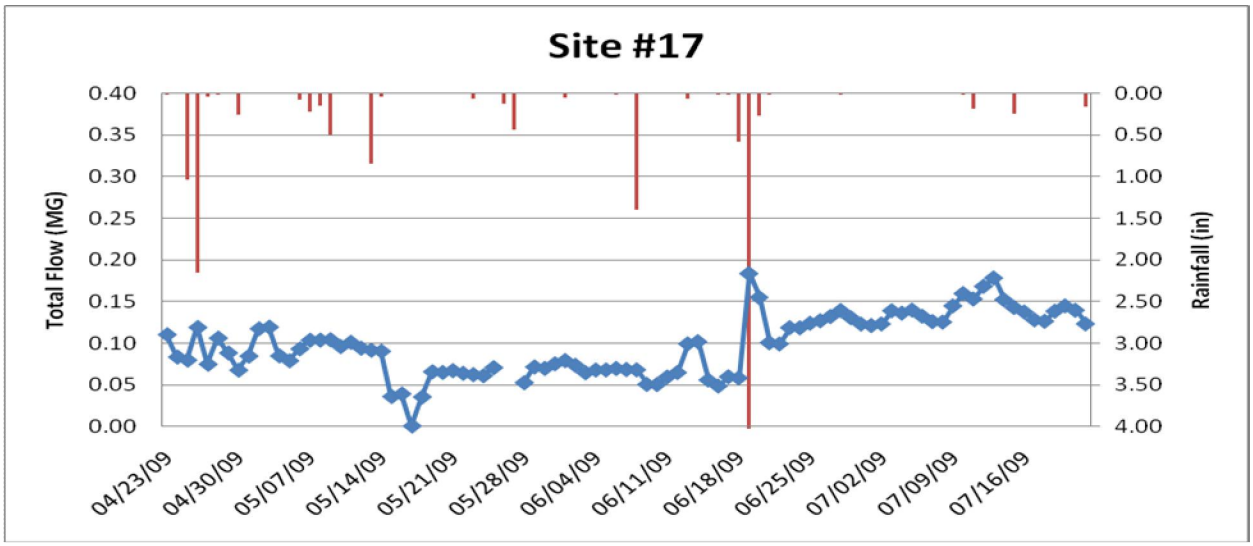

Site 15
d/D
q/Qd
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
0.2
0.4
0.6
0.8
1
1.2
Manning's Curve
Meter Data

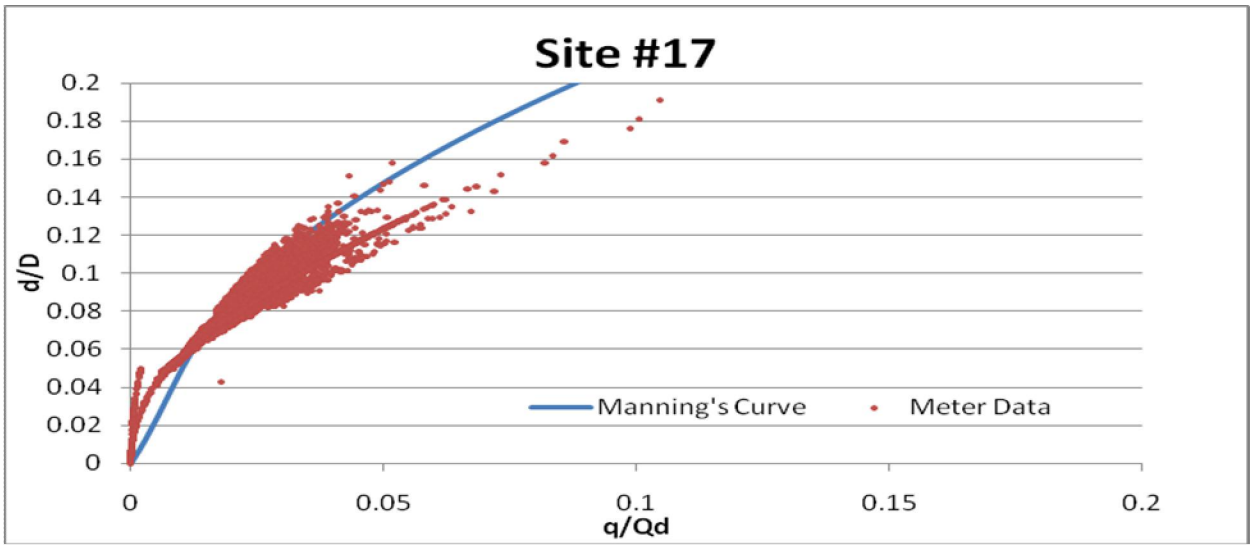

Site #15 Diurnal Flow
Multiplier
Hour
2.50
2.00
1.50
1.00
0.50
0.00
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Total
Weekdays
Weekends
Total'
Weekday'
Weekend'

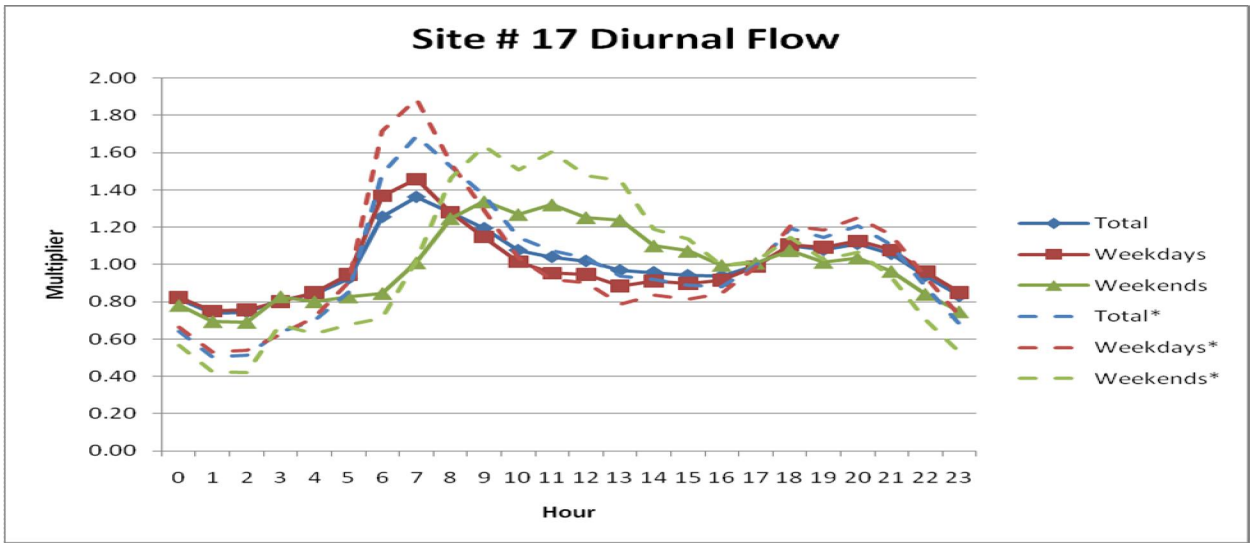

Site #16
Total Flow (MG)
Rainfall (in)
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0.00
0.50
1.00
1.50
2.00
2.50
3.00
3.50
4.00
04/22/09
04/29/09
05/06/09
05/13/09
05/20/09
05/27/09
06/03/09
06/10/09
06/17/09
06/24/09
07/01/09
07/08/09
07/15/09
07/22/09

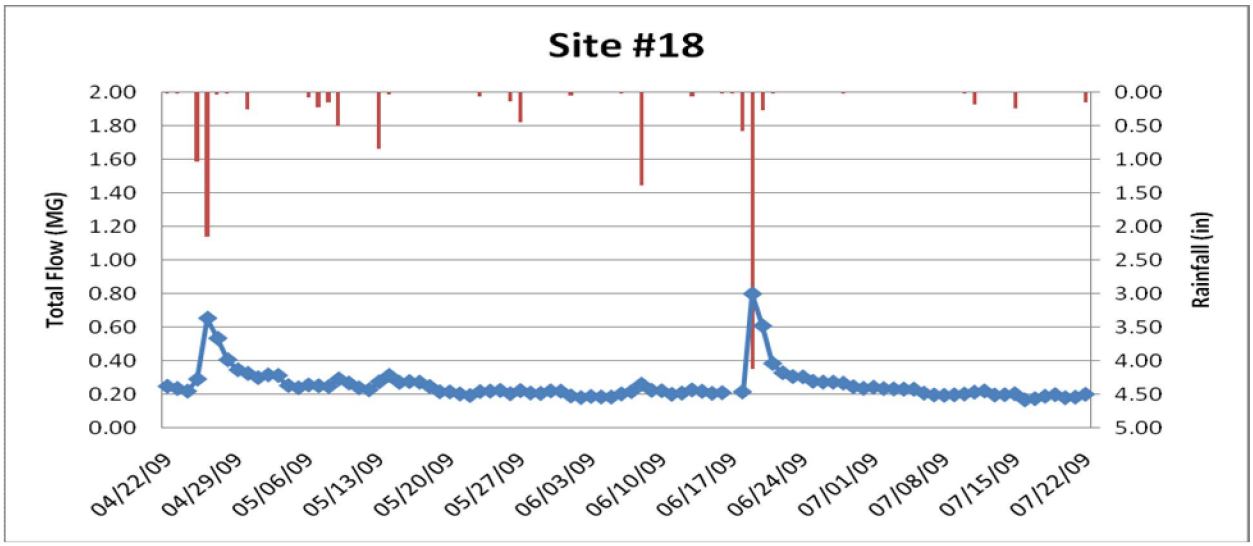

Site #16
d/D
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
0.2
0.4
0.6
0.8
1
1.2
q/Qd
Manning's Curve
Meter Data

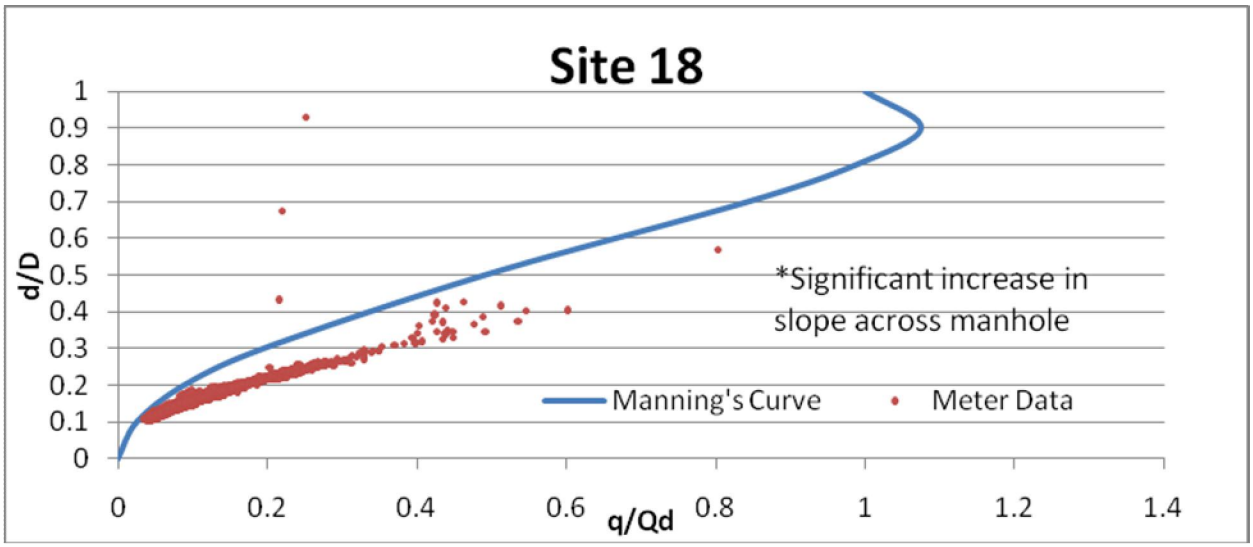

Site #16 Diurnal Flow
Multiplier
2.50
2.00
1.50
1.00
0.50
0.00
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Hour
Total
Weekdays
Weekends
Total*
Weekdays*
Weekends*

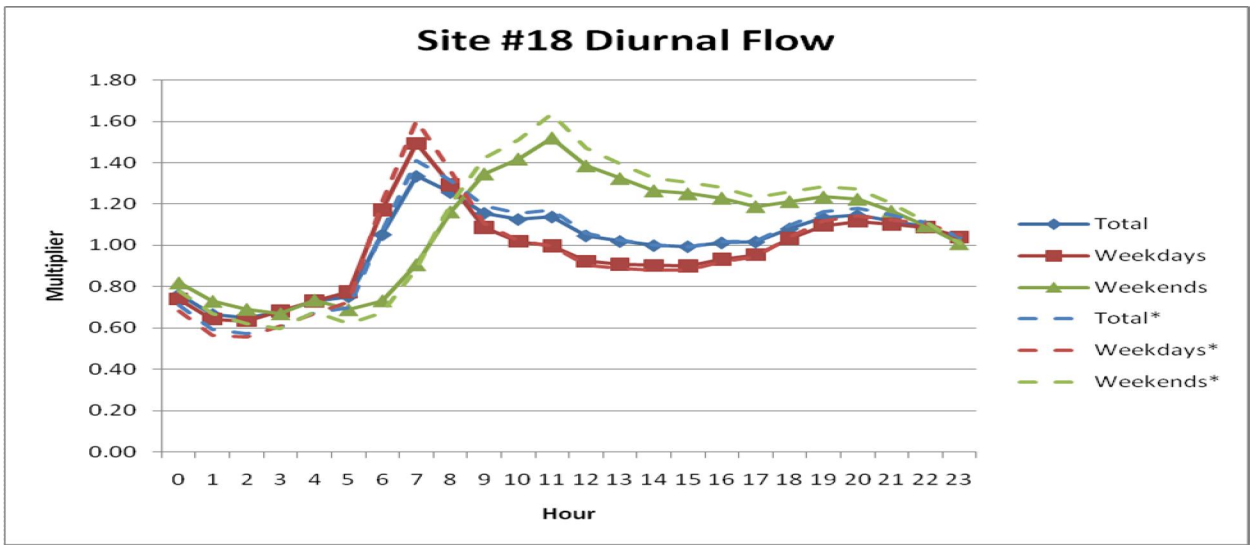

Site #17
Total Flow (MG)
Rainfall (in)
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0.00
0.50
1.00
1.50
2.00
2.50
3.00
3.50
4.00
04/23/09
04/30/09
05/07/09
05/14/09
05/21/09
05/28/09
06/04/09
06/11/09
06/18/09
06/25/09
07/02/09
07/09/09
07/16/09

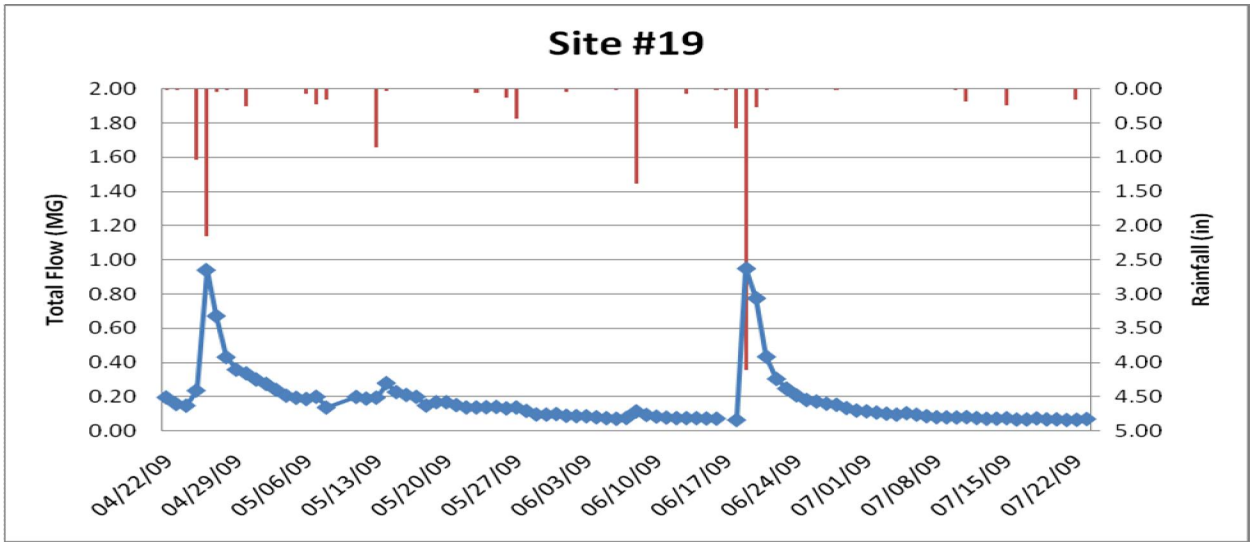

Site #17
d/D
q/Qd
0.2
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
0
0.05
0.1
0.15
0.2
Manning's Curve
Meter Data

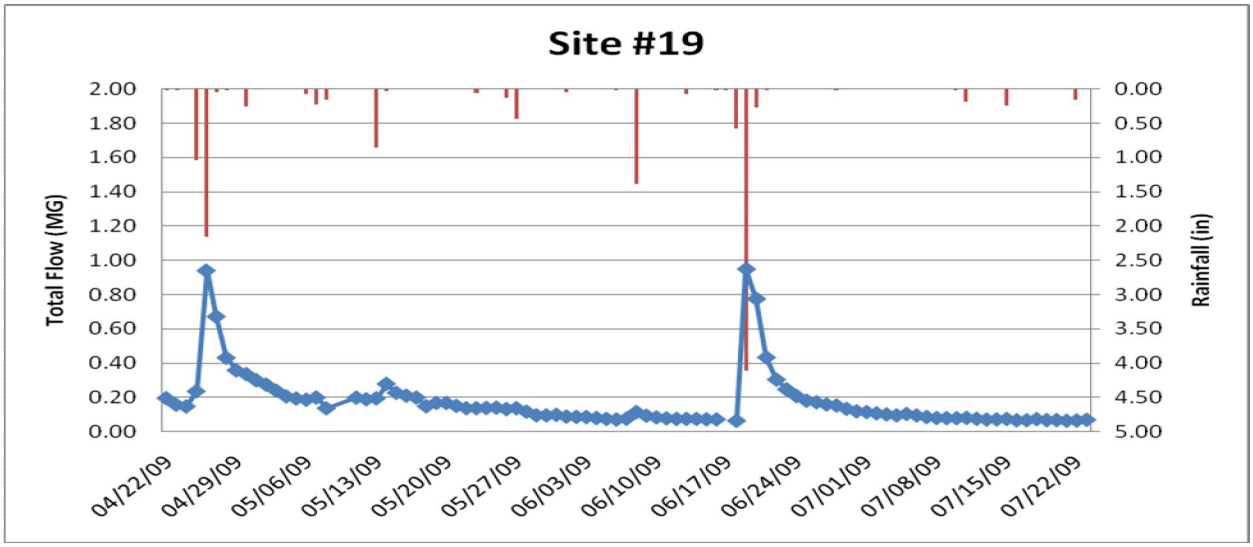

Site # 17 Diurnal Flow
Multiplier
Hour
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Total
Weekdays
Weekends
Total*
Weekdays*
Weekends*

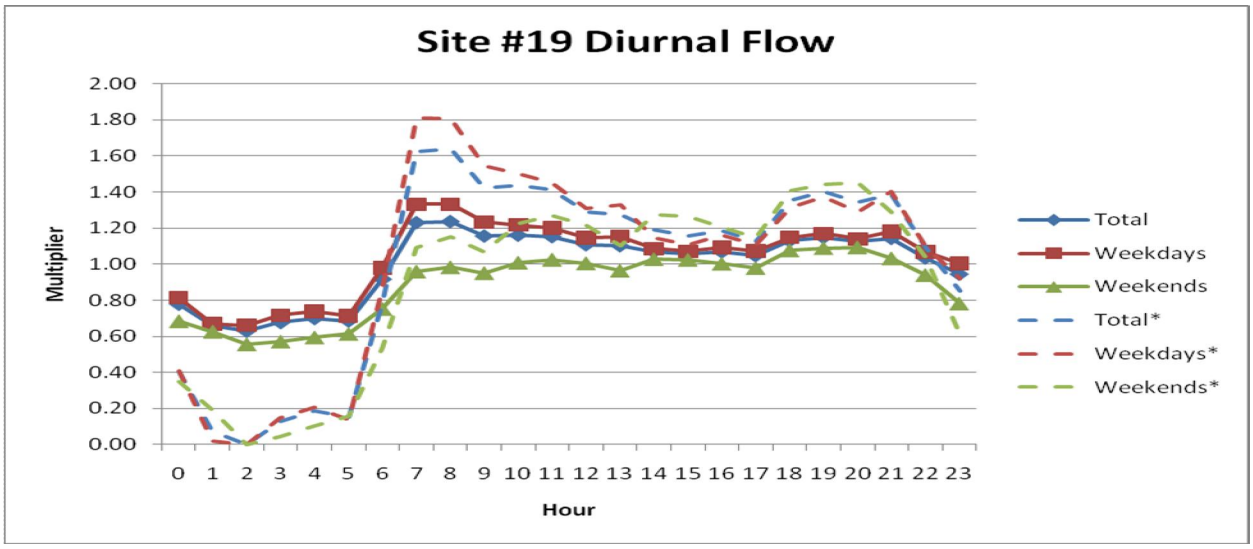

Site #18
Total Flow (MG)
Rainfall (in)
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0.00
0.50
1.00
1.50
2.00
2.50
3.00
3.50
4.00
4.50
5.00
04/22/09
04/29/09
05/06/09
05/13/09
05/20/09
05/27/09
06/03/09
06/10/09
06/17/09
06/24/09
07/01/09
07/08/09
07/15/09
07/22/09


Site 18
d/D
q/Qd
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
0.2
0.4
0.6
0.8
1
1.2
1.4
*Significant increase in slope across manhole
Manning's Curve
Meter Data


Site #18 Diurnal Flow
Multiplier
Hour
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Total
Weekdays
Weekends
Total*
Weekdays*
Weekends*


Site #19
Total Flow (MG)
Rainfall (in)
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0.00
0.50
1.00
1.50
2.00
2.50
3.00
3.50
4.00
4.50
5.00
04/22/09
04/29/09
05/06/09
05/13/09
05/20/09
05/27/09
06/03/09
06/10/09
06/17/09
06/24/09
07/01/09
07/08/09
07/15/09
07/22/09


Site #19
Total Flow (MG)
Rainfall (in)
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0.00
0.50
1.00
1.50
2.00
2.50
3.00
3.50
4.00
4.50
5.00
04/22/09
04/29/09
05/06/09
05/13/09
05/20/09
05/27/09
06/03/09
06/10/09
06/17/09
06/24/09
07/01/09
07/08/09
07/15/09
07/22/09


Site #19 Diurnal Flow
Multiplier
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Hour
Total
Weekdays
Weekends
Total*
Weekdays*
Weekends*

Appendix E

Smoke Testing Logs

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	09/22/09
YORKSHIRE COURT	1480	1477	8"	521	TIME	8:00 AM
LINCOLNSHIRE COURT	1462	1473	8"	958	INITIAL	SB
DENTON DRIVE	1461	1485	8-12"	826	BOMBS	LIQUID SMOKE
ST. ANDREWS COURT	1467	1466	8-12"	813	TOTAL FT.	3118

LOCATION	2600 YORKSHIRE COURT
BETWEEEN MH'S	1480-1479-1478-1477
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	2810 LINCOLNSHIRE COURT
BETWEEEN MH'S	1462-1463-1464-1475-1474-1473
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
#1 AND #2	
LOCATION	LINCOLNSHIRE COURT/DENTON DRIVE
BETWEEEN MH'S	1461-1460-1459-1465-1475-1458-1485
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	ST. ANDREWS COURT/ROLLING RIDGE DRIVE
BETWEEEN MH'S	1467-1465-1458-3-1468-1466
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS:
X	
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - J.G

ON	FROM	TO	SIZE	LENGTH	DATE	09/22/09
ROLLING RIDGE	1468	1473	8-12"	864	TIME	9:30 AM
ROLLING RIDGE	1473	1481	12"	525	INITIAL	SB
COVENTRY LANE	5608	5585	8"	689	BOMBS	LIQUID SMOKE
NEW CASTLE COURT	1411	1401	8"	842	TOTAL FT.	2920

LOCATION	WELLINGTON COURT/ROLLING RIDGE DRIVE
BETWEEEN MH'S	1468-1469-1470-1471-1472-1473
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	ABERDEEN COURT/ROLLING RIDGE DRIVE
BETWEEEN MH'S	1473-1476-1477-1481
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	2700 COVENTRY LANE
BETWEEEN MH'S	5608-5607-5606-5605-5585
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	2703 NEW CASTLE COURT
BETWEEEN MH'S	1411-1410-1409-1408-1407-1401
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	
X	COMMENTS:
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S..B.

ON	FROM	TO	SIZE	LENGTH	DATE	09/22/09
COVENTRY LANE	5600	5589	8"	1356	TIME	11:00 AM
COVENTRY LANE	5599	5589	8"	701	INITIAL	S.B.
COVENTRY LANE	5589	5587	8"	515	BOMBS	LIQUID SMOKE
WOODRIDGE LANE	5585	1401	10"	954	TOTAL FT.	3526

LOCATION	2925 COVENTRY LANE
BETWEEEN MH'S	5600-5601-5602-5603-5604-5594-5593-5592-5590-5589
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	TWO SET UPS
LOCATION	2929 COVENTRY LANE
BETWEEEN MH'S	5599-5598-5596-5597-5591-5589
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO. 87/88	
LOCATION	2815 COVENTRY LANE
BETWEEEN MH'S	5589-5588-5586-5585-5587
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	WOODRIDGE LANE/COVENTRY LANE
BETWEEEN MH'S	5585-5611-5610-5609-1400-1401
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS:
X	
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - J.G

ON	FROM	TO	SIZE	LENGTH	DATE	09/22/09
BERKSHIRE DRIVE	4323	1400	8"	1013	TIME	12:30PM
BERKSHIRE COURT	1398	1397	8"	273	INITIAL	SB
					BOMBS	LIQUID SMOKE
					TOTAL FT.	1286

LOCATION	2902 BERKSHIRE DRIVE
BETWEEEN MH'S	4323-4324-4325-4326-1396-1397-1399-1400
&	
DRAINAGE AREA	
X	COMMENTS:
PICTURE NO.	LOOKS GOOD
LOCATION	BERKSHIRE COURT
BETWEEEN MH'S	1398-1397
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS
X	
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS:
X	
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	
X	COMMENTS:
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - J.G

ON	FROM	TO	SIZE	LENGTH	DATE	09/23/09
FIELDING LANE	19310	5614	8"	983	TIME	7:45 AM
FIELDING LANE	5614	5617	8"	874	INITIAL	SB
CREST LANE	1496	5617	8"	624	BOMBS	LIQUID SMOKE
CREST LANE	1498	1600	8"	732	TOTAL FT.	3213

LOCATION	2912 FIELDING LANE
BETWEEEN MH'S	19310-5612-5617-5614
&	COMMENTS: CLEAN OUT COVER IS CRACKED
DRAINAGE AREA	SMOKE ESCAPED FROM CRACK AROUND MANHOLE
X	
PICTURE NO.	1-2-3-4
LOCATION	FIELDING DRIVE APT. BUILDING
BETWEEEN MH'S	5614-5613-5616-5617
&	COMMENTS:
DRAINAGE AREA	LOOKS GOOD
X	
PICTURE NO.	
LOCATION	EASEMENT/CREST LANE
BETWEEEN MH'S	1496-1497-1495-5617
&	COMMENTS:
DRAINAGE AREA	LOOKS GOOD
X	
PICTURE NO.	
LOCATION	EASEMENT/CREST LANE
BETWEEEN MH'S	1498-1599-1600
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	
X	COMMENTS:
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - J.G

ON	FROM	TO	SIZE	LENGTH	DATE	09/23/09
PRIVATE ROAD	1615	1613	8"	443	TIME	9:45 AM
PRIVATE ROAD	1613	1605	8"	889	INITIAL	J.G.
PRIVATE ROAD	1601	1604	8"	823	BOMBS	LIQUID SMOKE
PRIVATE ROAD	1605	1498	8"	1263	TOTAL FT.	3420

LOCATION	PRIVATE DRIVE/ALBANY COURT
BETWEEEN MH'S	1615-1614-1613
&	
DRAINAGE AREA	
X	COMMENTS;
PICTURE NO.	LOOKS GOOD
LOCATION	PRIVATE DRIVE/WOODRIDGE LANE
BETWEEEN MH'S	1613-1612-1611-1606-1605
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	PRIVATE DRIVE/CREST LANE
BETWEEEN MH'S	1601-1610-1609-1607-1608-1604
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	EASEMENT
BETWEEEN MH'S	1605-1604-1602-1603-1498
&	
DRAINAGE AREA	
X	COMMENTS:
PICTURE NO.	LOOKS GOOD
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	
X	COMMENTS:
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	09/23/09
WOODRIDGE LANE	1401	1406	10"	904	TIME	11:00AM
BUCKINGHAM COURT	1416	1406	8"	714	INITIAL	S.B.
SUSSEX LANE	1417	1421	10"	990	BOMBS	LIQUID SMOKE
SUSSEX LANE	1423	1406	8"	894	TOTAL FT.	3502

LOCATION	WOODRIDGE LANE/NEW CASTLE COURT
BETWEEEN MH'S	1401-1402-1404-1403-1405-1406
&	
DRAINAGE AREA	
X	COMMENTS:
PICTURE NO.	LOOKS GOOD
LOCATION	BUCKINGHAM COURT/WOODRIDGE COURT
BETWEEEN MH'S	1416-1415-1414-1412-1406
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	2821 SUSSEX LANE
BETWEEEN MH'S	1417-1418-1419-1420-1421
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	2700 SUSSEX LANE
BETWEEEN MH'S	1423-1422-1421-1413-1406
&	
DRAINAGE AREA	
X	COMMENTS;
PICTURE NO.	LOOKS GOOD
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	
X	COMMENTS:
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	09/23/09
BRISTOL COURT	1430	1426	8"	773	TIME	12:45 PM
WOODRIDGE LANE	1421	1426	10"	335	INITIAL	SB
WOODRIDGE LANE	1424	1426	8"	187	BOMBS	LIQUID SMOKE
					TOTAL FT.	1295

LOCATION	2703 BRISTOL COURT
BETWEEEN MH'S	1430-1429-1428-1426
&	
DRAINAGE AREA	
X	COMMENTS:
PICTURE NO.	LOOKS GOOD
LOCATION	SUSSEX LANE/WOODRIDGE DRIVE
BETWEEEN MH'S	1421-1424-1425-1426
&	
DRAINAGE AREA	
X	COMMENTS:
PICTURE NO.	LOOKS GOOD
LOCATION	2712 WOODRIDGE DRIVE
BETWEEEN MH'S	1424-1425-1426
&	
DRAINAGE AREA	
X	COMMENTS;
PICTURE NO.	LOOKS GOOD
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	
X	COMMENTS:
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	
X	COMMENTS:
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	09/24/09
WELSH COURT	1431	1434	8"	631	TIME	7:45 AM
ALBANY COURT	1435	1437	8"	516	INITIAL	S.B.
WOODRIDGE LANE	1426	1439	8"	658	BOMBS	LIQUID SMOKE
UNIVERSITY COURT	1487	1482	8"	538	TOTAL FT.	2343

LOCATION	2708 WELSH COURT
BETWEEEN MH'S	1431-1432-1433-1434
&	
DRAINAGE AREA	
X	COMMENTS:
PICTURE NO. 1	LOOKS GOOD
LOCATION	2704 ALBANY COURT
BETWEEEN MH'S	1435-1434-1436-1437
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	2703 WOODWAY LANE
BETWEEEN MH'S	1428-1427-1437-1438-1439
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	2712 UNIVERSITY COURT
BETWEEEN MH'S	1487-1439-1483-1482
&	
DRAINAGE AREA	COMMENTS:
X	HOUSE # 2712 CRACKED CLEAN OUT COVER IN FRONT OF HOUSE.
PICTURE NO.	5-6
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS:
X	
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	09/24/09
PATRICIA LANE	8	1555	8"	1266	TIME	8:45 AM
PEBBLE VALLEY ROAD	1560	1553	8"	730	INITIAL	S.B.
COBBLESTONE COURT	1549	1555	8"	1077	BOMBS	LIQUID SMOKE
PEBBLE VALLEY ROAD	1555	1515	8"	492	TOTAL FT.	3565

LOCATION	2208 PATRICIA LANE
BETWEEEN MH'S	8-7-6-1564-1563-1555
&	
DRAINAGE AREA	COMMENTS: #2208 SOUTH SIDE OF DRIVEWAY, MISSING CLEAN OUT COVER.
X	HOME OWNER PUT A LARGE ROCK OVER THE HOLE.
PICTURE NO.	7-8
LOCATION	2207 PEBBLE VALLEY ROAD
BETWEEEN MH'S	1560-1559-1557-1558-1553
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	2037 COBBLESTONE COURT
BETWEEEN MH'S	1549-1550-1551-1552-1553-1554-1555
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	2333 PEBBLE VALLEY ROAD
BETWEEEN MH'S	1555-1517-1556-1516-1515
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS:
X	
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW -S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	09/24/09
GRAY FOX COURT	1562	1513	8"	890	TIME	11:00 AM
QUEENS COURT	1532	1511	8"	665	INITIAL	S.B.
PEBBLE VALLEY ROAD	1511	1508	15"	724	BOMBS	LIQUID SMOKE
PEBBLE VALLEY ROAD	1508	4404	15"	639	TOTAL FT.	2918

LOCATION	2320 GREY FOX COURT
BETWEEEN MH'S	1562-1561-1533-1515-1514-1513
&	
DRAINAGE AREA	
X	COMMENTS
PICTURE NO.	LOOKS GOOD
LOCATION	2100 QUEENS COURT
BETWEEEN MH'S	1532-1513-1512-1511-1511
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO. 2	
LOCATION	PEBBLE VALLEY ROAD/HUNTER RIDGE ROAD
BETWEEEN MH'S	1511-1510-1509-1508
&	
DRAINAGE AREA	
X	COMMENTS:
PICTURE NO.	LOOKS GOOD
LOCATION	2526 PEBBLE VALLEY ROAD
BETWEEEN MH'S	1508-1507-1506-4404
&	
DRAINAGE AREA	
X	COMMENTS:
PICTURE NO.	LOOKS GOOD
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	
X	COMMENTS
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	09/24/09
RAMSHEAD COURT	1382	1535	8"	642	TIME	12:15 PM
RAMSHEAD COURT	1537	1540	8"	452	INITIAL	S.B.
					BOMBS	LIQUID SMOKE
					TOTAL FT.	1094

LOCATION	COMMENTS
BETWEEEN MH'S	1382-1537-1536-1534-1535
&	
DRAINAGE AREA	
X	COMMENTS
PICTURE NO.	LOOKS GOOD
LOCATION	2344 RAMSHEAD COURT
BETWEEEN MH'S	1537-1538-1539-1546
&	
DRAINAGE AREA	
X	COMMENTS:
PICTURE NO.	LOOKS GOOD
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS:
X	
PICTURE NO. 3-4-5	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS:
X	
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS:
X	
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	09/24/09
PEARL STREET	3433	3432	10"	980	TIME	8:00 AM
PEARL STREET	3432	1769	10"	947	INITIAL	S.B.
PEARL STREET	1769	1770	10"	365	BOMBS	LIQUID SMOKE
PEARL STREET	1771	1775	8"	1197	TOTAL FT.	3489
LOCATION	1709 PEARL STREET					
BETWEEEN MH'S	3433-1767-1766-84-3432					
&						
DRAINAGE AREA	COMMENTS: 1709 PEARL STREET NEXT TO ENTRANCE TO OFFICE.					
X	CLEAN OUT COVER NEEDS TO BE REPLACED					
PICTURE NO.	9-10					
3 AND 4						
LOCATION	PEARL STREET					
BETWEEEN MH'S	3432-1782-1768-1769					
&						
DRAINAGE AREA	COMMENTS:CRACKS AROUND MANHOLE COVER. COVER NEXT MANHOLE					
X	LEAKS SMOKE. MANHOLE #3432					
PICTURE NO.	11-12 AND 13-14					
LOCATION	PEARL STREET					
BETWEEEN MH'S	1769-1770					
&						
DRAINAGE AREA	COMMENTS:					
X	LOOKS GOOD					
PICTURE NO.						
LOCATION	PEARL STREET					
BETWEEEN MH'S	1771-1775					
&						
DRAINAGE AREA	COMMENTS:MISSING CLEAN OUT COVER AT ADDRESS 1404 PEARL STREET.					
X	IN PARKING LOT					
PICTURE NO.	19-20					
LOCATION						
BETWEEEN MH'S						
&						
DRAINAGE AREA	COMMENTS:					
X						
PICTURE NO.						

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	09/29/09
COMMERCE STREET	1768	92	8"	532	TIME	9:30 AM
PEARL STREET	3428	87	8"	1277	INITIAL	S.B.
PEARL STREET	87	1718	8"	921	BOMBS	LIQUID SMOKE
HILLSIDE DRIVE	4096	1777	8"	815	TOTAL FT.	3545
LOCATION	COMMERCE STREET/PEARL STREET					
BETWEEEN MH'S	1768-90-92					
&						
DRAINAGE AREA	COMMENTS: CRACKS AROUND MANHOLE COVER #90					
X	400 COMMERCE STREET MISSING CLEAN OUT COVER					
PICTURE NO.	15-16-17-18					
LOCATION	PEARL STREET/BIDDLE STREET					
BETWEEEN MH'S	3428-3034-3033-85-86-1776-87					
&						
DRAINAGE AREA	COMMENTS: CRACKS AROUND MANHOLE #3428					
X						
PICTURE NO.	21-22					
LOCATION	1225 PEARL STREET					
BETWEEEN MH'S	87-88-89-4157-1718					
&						
DRAINAGE AREA	COMMENTS: 1225 PEARL STREET MISSING CLEAN OUT COVER NEAR DRIVEWAY.					
X						
PICTURE NO.	23-24					
LOCATION	1405 HILLSIDE DRIVE					
BETWEEEN MH'S	4090-4089-4091-4088-4087-3434-1777					
&						
DRAINAGE AREA	COMMENTS:					
X	LOOKS GOOD					
PICTURE NO.						
LOCATION						
BETWEEEN MH'S						
&						
DRAINAGE AREA	COMMENTS:					
X						
PICTURE NO.						

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	09/29/09
ELLIS STREET	1777	92	8"	692	TIME	11:15 AM
HILLSIDE DRIVE	3416	1869	8"	761	INITIAL	S.B.
HILLSIDE DRIVE	1869	3405	8"	463	BOMBS	LIQUID SMOKE
PORTER AVENUE	3407	5645	8"	574	TOTAL FT.	2490

LOCATION	ELLIS STREET/COMMERCE STREET
BETWEEEN MH'S	1777-91-92
&	
DRAINAGE AREA	COMMENTS
X	LOOKS GOOD
PICTURE NO.	
LOCATION	1352 HILLSIDE DRIVE
BETWEEEN MH'S	3416-1868-1867-1869
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO. 6	
LOCATION	HILLSIDE DRIVE
BETWEEEN MH'S	1869-1871-1870-3408
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	PORTER AVENUE/HILLSIDE DRIVE
BETWEEEN MH'S	3407-3406-3408-3405-5645
&	
DRAINAGE AREA	
X	COMMENTS:
PICTURE NO.	LOOKS GOOD
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS:
X	
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	09/29/09
ELLIS STREET	3427	3423	8"	1216	TIME	12:00 PM
ELLIS STREET	3423	1779	8"	871	INITIAL	S.B.
					BOMBS	LIQUID SMOKE
					TOTAL FT.	2087

LOCATION	1350 ELLIS STREET
BETWEEEN MH'S	3427-3426-3425-3424-3423
&	
DRAINAGE AREA	COMMENTS: CRACK AROUND MANHOLE #3425
X	
PICTURE NO.	25-26
LOCATION	1232 ELLIS STREET
BETWEEEN MH'S	3423-1778-5645-1779
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS:
X	
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS:
X	
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS
X	
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	09/28/09
BRAMBLEWOOD COURT	1548	1344	8"	361	TIME	8:15 AM
BROKEN HILL ROAD	1543	1382	8"	915	INITIAL	S.B.
BROKEN HILL ROAD	1382	1521	8"	752	BOMBS	LIQUID SMOKE
BROKEN HILL ROAD	1521	1518	8"	492	TOTAL FT.	3020

LOCATION	2324 BRAMBLEWOOD COURT
BETWEEEN MH'S	1548-1547-1546-1545-1544-1543
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	BROKEN HILL ROAD/OXBRIDGE COURT
BETWEEEN MH'S	1543-1542-1541-1382
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO. 8-9	
LOCATION	BROKEN HILL ROAD/STONEHENGE COURT
BETWEEEN MH'S	1382-1522-1523-1521
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	BROKEN HILL ROAD/HUNTER RIDGE ROAD
BETWEEEN MH'S	1521-1520-1519-1518
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS
X	
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	09/28/09
HUNTING RIDGE	1521	1529	8"	834	TIME	9:15 AM
HUNTING RIDGE	1527	1511	8"	820	INITIAL	S.B.
EASEMENT	1508	1573	8"	639	BOMBS	LIQUID SMOKE
EASEMENT	1573	1570	8"	1007	TOTAL FT.	3300

LOCATION	HUNTING RIDGE/BARBERRY COURT
BETWEEEN MH'S	1521-1524-1525-1526-1529
&	
DRAINAGE AREA	COMMENTS
X	LOOKS GOOD
PICTURE NO.	
6 AND 7	
LOCATION	HUNTING RIDGE/STONE FIELD COURT
BETWEEEN MH'S	1527-1528-1529-1530-1531-1511
&	
DRAINAGE AREA	COMMENTS
X	LOOKS GOOD
PICTURE NO.	
LOCATION	EASEMENT/PEBBLE VALLEY
BETWEEEN MH'S	1508-1619-1574-1573
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	EASEMENT
BETWEEEN MH'S	1573-1572-1571-1570
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	
X	COMMENTS
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.BJ.G

ON	FROM	TO	SIZE	LENGTH	DATE	09/28/09
EASEMENT	1562	1565	8"	492	TIME	10:30 AM
EASEMENT	1565	1587	8"	792	INITIAL	S.B.
WOODBURN ROAD	1585	5626	8"	1164	BOMBS	LIQUID SMOKE
WOODBURN ROAD	1585	151576	10"	1200	TOTAL FT.	3654

LOCATION	EASEMENT
BETWEEEN MH'S	1567-1566-1565
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO. 10	

LOCATION	EASEMENT
BETWEEEN MH'S	1565-1568-1569-1587
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	

LOCATION	WOODBURN ROAD
BETWEEEN MH'S	1585-1586-1588-5618-5619-5626
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	

LOCATION	1904 WOODBURN
BETWEEEN MH'S	1585-1884-1583-1578-1577-1576
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	

LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS
X	
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	09/28/09
WILLOW WOOD DRIVE	1578	1582	8"	779	TIME	12:00 PM
EASEMENT	19270	19281	8"	990	INITIAL	S.B.
WOODBURN ROAD	1576	1574	8"	608	BOMBS	LIQUID SMOKE
					TOTAL FT.	2377

LOCATION	WILLOW WOOD DRIVE/ WOODBURN DRIVE
BETWEEEN MH'S	1578-1579-1580-1581-1582-19270
&	
DRAINAGE AREA	COMMENTS
X	LOOKS GOOD
PICTURE NO.	

LOCATION	EASEMENT
BETWEEEN MH'S	19268-19267-19270-19273-19271-19280-19281
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	

LOCATION	2110 WOODBURN ROAD
BETWEEEN MH'S	1576-4093-4092-1575-1574
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	

LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS:
X	
PICTURE NO.	

LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS:
X	
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	09/30/09
FISK AVENUE	3402	1780	8"	768	TIME	7:45 AM
GREENFIELD AVENUE	3392	72	8"	1154	INITIAL	S.B.
HARRIS DRIVE	3419	3411	8"	720	BOMBS	LIQUID SMOKE
HARRIS DRIVE	3419	5639	8"	1110	TOTAL FT.	3752

LOCATION	FISK AVENUE/ELLIS STREET
BETWEEEN MH'S	3402-3403-3404-1779-1780
&	
DRAINAGE AREA	COMMENTS
X	LOOKS GOOD
PICTURE NO.	
LOCATION	GREENFIELD AVENU/ELLIS STREET
BETWEEEN MH'S	3392-1780-1718-1719-1807-72
&	
DRAINAGE AREA	COMMENTS
X	LOOKS GOOD
PICTURE NO.	
LOCATION	1358 HARRIS DRIVE
BETWEEEN MH'S	3419-3420-3421-3422-3411
&	
DRAINAGE AREA	COMMENTS: CRACKS AROUND MANHOLE COVER #3421
X	
PICTURE NO.	27-28
LOCATION	1355 HARRIS DRIVE
BETWEEEN MH'S	3419-3418-3417-5817-5872-5640-5639
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	
X	COMMENTS
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	09/30/09
PORTER AVENUE	3413	1910	8"	538	TIME	9:15 AM
TENNY AVENUE	3264	788	8"	678	INITIAL	S.B.
TENNY AVENUE	788	3030	8"	745	BOMBS	LIQUID SMOKE
TENNY AVENUE	3030	4616	8"	743	TOTAL FT.	2704

LOCATION	PORTER AVENUE/HARRIS DRIVE
BETWEEEN MH'S	3413-3412-3411-1910
&	
DRAINAGE AREA	COMMENTS
X	LOOKS GOOD
PICTURE NO.	
LOCATION	TENNY AVENUE
BETWEEEN MH'S	3264-787-3263-788
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	TENNY AVENUE
BETWEEEN MH'S	788-3262-3261-3030
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	TENNY AVENUE
BETWEEEN MH'S	3030-5467-4616
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS
X	
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	09/30/09
LAFLIN AVENUE	3262	3266	8"	808	TIME	10:15AM
GREENFIELD AVENUE	3260	4722	8"	440	INITIAL	SB
LAFLIN AVENUE	1818	793	8"	728	BOMBS	LIQUID SMOKE
NEW HALL AVENUE	759	792	8"	489	TOTAL FT.	2465

LOCATION	LAFLIN AVVENUE/GREENFIELD AVENUE
BETWEEEN MH'S	3213-1708-3267-3266
&	
DRAINAGE AREA	COMMENTS
X	LOOKS GOOD
PICTURE NO.	
LOCATION	GREENFIELD AVENUE/RACINE AVENUE
BETWEEEN MH'S	3260-3259-4722
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	LAFLIN AVENUE/NEW HALL AVENUE
BETWEEEN MH'S	1878-791-792-793
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	NEW HALL AVENUE/LAFLIN AVENUE
BETWEEEN MH'S	759-760-792
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS
X	
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	09/30/09
LAFLIN AVENUE	793	1708	8"	918	TIME	11:00 AM
LOOKOUT DRIVE	3415	3409	8"	454	INITIAL	S.B.
PORTER AVENUE	4724	1863	8"	526	BOMBS	LIQUID SMOKE
					TOTAL FT.	1898

LOCATION	LAFLIN AVENUE
BETWEEEN MH'S	793-814-1879-1708-3265
&	
DRAINAGE AREA	COMMENTS: CRACKS AROUND MANHOLE #3265
X	
PICTURE NO.	29-30
LOCATION	LOOKOUT DRIVE
BETWEEEN MH'S	3415-3414-3409
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	PORTER AVENUE/LOOK OUT DRIVE
BETWEEEN MH'S	4724-1862-1863
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS:
X	
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS;
X	
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	10/01/09
COLUMBIA AVENUE	4725	3461	8"	917	TIME	8:00 AM
COLUMBIA AVENUE	3397	1136	8"	951	INITIAL	S.B.
PORTER AVENUE	3410	5641	8"	535	BOMBS	LIQUID SMOKE
BROADWAY AVENUE	4082	5641	10"	615	TOTAL FT.	3018

LOCATION	COLUMBIA AVENUE/RACINE AVENUE
BETWEEEN MH'S	4725-5468-3396-3397-3400-3401
&	
DRAINAGE AREA	COMMENTS
X	LOOKS GOOD
PICTURE NO.	
LOCATION	COLUMBIA AVENUE/GRANT STREET
BETWEEEN MH'S	3397-3398-3399-1136
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	PORTER AVENUE/BROADWAY AVENUE
BETWEEEN MH'S	3410-1864-1865-1866-5641
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	1310 BROADWAY AVENUE
BETWEEEN MH'S	4082-4081-4080-5646-5641
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS
X	
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	10/01/09
BROADWAY AVENUE	5641	1136	10"	756	TIME	9:15 AM
BROADWAY AVENUE	1136	5472	10"	881	INITIAL	S.B.
RACINE AVENUE	4723	5466	10"	825	BOMBS	LIQUID SMOKE
RACINE AVENUE	4723	3258	10"	933	TOTAL FT.	3395

LOCATION	BROADWAY AVENUE/PORTER AVENUE
BETWEEEN MH'S	5641-1910-1139-1138-1137-1136
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	BROADWAY/COLUMBIA AVENUE
BETWEEEN MH'S	1136-1135-1134-5472
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	1013 RACINE AVENUE
BETWEEEN MH'S	4723-4722-4721-5465-5466
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	1013 RACINE AVENUE
BETWEEEN MH'S	4723-5469-4724-1898-3258
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS:
X	
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	10/01/09
GREENFIELD AVENUE	3394	4716	10"	825	TIME	10:45 AM
GREENFIELD AVENUE	3394	1134	10"	595	INITIAL	S.B.
OAKLAND AVENUE	5472	4717	8"	930	BOMBS	LIQUID SMOKE
					TOTAL FT.	2350

LOCATION	GREENFIELD AVENUE
BETWEEEN MH'S	3394-3933-UNKNOWN-4716
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO. 16-17	
LOCATION	GREENFIELD AVENUE
BETWEEEN MH'S	3394-3395-1134
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	OAKLAND AVENUE/BROADWAY STREET
BETWEEEN MH'S	5472-19304-19305-19206-4717
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO. 18	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS:
X	
PICTURE NO. 19	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS:
X	
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA,WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	10/05/09
LINCOLN AVENUE	1750	3391	15"	787	TIME	7:45 AM
LINCOLN AVENUE	3391	3430	15-18"	1002	INITIAL	S.B.
LINDEN STREET	5565	5563	8"	910	BOMBS	LIQUID SMOKE
GREENFIELD AVENUE	99	4503	8"	351	TOTAL FT.	3050

LOCATION	LINCOLN AVENUE
BETWEEEN MH'S	1750-1751-1749-3391
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	LINCOLN AVENUE/FREDRICK STREET
BETWEEEN MH'S	3391-3390-73-3431-3429-3430
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	LINDEN STREET/GREENFIELD AVENUE
BETWEEEN MH'S	5563-4504-5564-5565
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	GREENFIELD AVENUE/LINDEN STREET
BETWEEEN MH'S	99-4504-4503
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS:
X	
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	10/05/09
LINCOLN AVENUE	73	4513	18"	1087	TIME	9:00 AM
LINCOLN AVENUE	4513	4511	18"	621	INITIAL	S.B.
LINCOLN AVENUE	4511	5558	18"	845	BOMBS	LIQUID SMOKE
LAKE STREET	1896	4718	8"	941	TOTAL FT.	3494

LOCATION	LINCOLN AVENUE/PERKINS AVENUE
BETWEEEN MH'S	73-71-72-4508-4513
&	
DRAINAGE AREA	COMMENTS:CATCH BASIN LEAKING A LITTLE SMOKE ON THE SOUTHEAST SIDE OF
X	LINCOLN AVENUE ANND OAKLAND AVENUE
PICTURE NO.	31-32
LOCATION	LINCOLN AVENUE/OAKLAND AVENUE
BETWEEEN MH'S	4513-4509-4510-4511
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	LINCOLN AVENUE/BELL STREET
BETWEEEN MH'S	4511-4719-4512-4620-5558
&	
DRAINAGE AREA	COMMENTS;
X	LOOKS GOOD
PICTURE NO.	
LOCATION	LAKE STREET/LINCOLN AVENUE
BETWEEEN MH'S	4718-4719-4720-1896
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS:
X	
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	10/05/09
OAKLAND AVENUE	4513	5472	10"	1354	TIME	11:00 AM
CARPENTER PLACE	19299	3380	8"	552	INITIAL	S.B.
BUCHNER COURT	5566	5560	8"	373	BOMBS	LIQUID SMOKE
					TOTAL FT.	2279

LOCATION	OAKLAND AVENUE/CARPENTER PLACE
BETWEEEN MH'S	5472-19303-19303-19301-19299-4513
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	CARPENTER PLACE/OAKLAND AVENUE
BETWEEEN MH'S	19299-3379-3380
&	
DRAINAGE AREA	COMMENTS;
X	LOOKS GOOD
PICTURE NO.	
LOCATION	BUCHNER COURT/BROADWAY STREET
BETWEEEN MH'S	5566-5560
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS:
X	
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS:
X	
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	10/07/09
GASCOIGNER DRIVE	3102	3105	8"	1131	TIME	7:30 AM
PALMER DRIVE	3110	3102	8-15"	625	INITIAL	S.B.
PALMER DRIVE	3110	3108	8"	602	BOMBS	LIQUID SMOKE
MOREY STREET	3115	3112	8-15"	970	TOTAL FT.	3328

LOCATION	370 GASCOIGNER DRIVE
BETWEEEN MH'S	3102-3103-3107-3106-3104-3105
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	337 PALMER DRIVE
BETWEEEN MH'S	3110-3112-3111-3102
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	PALMER DRIVE/MOREY DRIVE
BETWEEEN MH'S	3110-3109-3108
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	347 MOREY STREET
BETWEEEN MH'S	3115-3114-3113-3112
&	
DRAINAGE AREA	COMMENTS: #303 MOREY STREET CRACKED CLEAN OUT COVER.
X	
PICTURE NO.	35-36
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS:
X	
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA,WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	10/07/09
PEWAUKEE ROAD	3113	3605	15-18"	708	TIME	9:15 AM
PEWAUKEE ROAD	3118	3600	10"	468	INITIAL	S.B.
NORTH STREET	2760	3604	10"	1050	BOMBS	LIQUID SMOKE
NORTH STREET	3604	2751	10"	915	TOTAL FT.	3138

LOCATION	PEWAUKEE ROAD/APARTMENT COMPLEX DRIVE
BETWEEEN MH'S	3113-3117-3116-3118-3605
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	PEWAUKEE ROAD/BUENA VISTA
BETWEEEN MH'S	3118-3598-3599-3600
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	NORTH STREET
BETWEEEN MH'S	3600-2760-3601-3602-3603-3604
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	730 NORTH STREET
BETWEEEN MH'S	3604-3608-3607-3606-2751
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS:
X	
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	10/07/09
NORTH STREET	2751	2743	8"	604	TIME	10:30 AM
COLLINS STREET	2745	5772	8"	1128	INITIAL	S.B.
UNION STREET	2743	2726	8"	910	BOMBS	LIQUID SMOKE
MARIA STREET	2725	1323	10-8"	625	TOTAL FT.	3267
LOCATION	NORTH STREET/UNION STREET					
BETWEEEN MH'S	2751-2750-2743					
&						
DRAINAGE AREA	COMMENTS:					
X	LOOKS GOOD					
PICTURE NO.						
LOCATION	COLLINS STREET/ST. PAUL AVENUE					
BETWEEEN MH'S	3745-2746-2744-2745-5772					
&						
DRAINAGE AREA	COMMMENTS:					
X	LOOKS GOOD					
PICTURE NO.						
LOCATION	UNION STREET/ST PAUL AVENUE					
BETWEEEN MH'S	2473-2742-5772-4108-1903-5773-2726					
&						
DRAINAGE AREA	COMMENTS:					
X	LOOKS GOOD					
PICTURE NO.						
LOCATION	MARIA/NORTH STREET					
BETWEEEN MH'S	2725-2724-1106-1323					
&						
DRAINAGE AREA	COMMENTS:					
X	LOOKS GOOD					
PICTURE NO.						
LOCATION						
BETWEEEN MH'S						
&						
DRAINAGE AREA	COMMENTS					
X						
PICTURE NO.						

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	10/07/09
MARIA STREET	2725	17510	10"	522	TIME	11:30 AM
					INITIAL	S.B.
					BOMBS	LIQUID SMOKE
					TOTAL FT.	522
LOCATION	MARIA STREET/ST. PAUL AVENUE					
BETWEEEN MH'S	2725-2726-1116-17510					
&						
DRAINAGE AREA	COMMENTS					
X	LOOKS GOOD					
PICTURE NO.						
LOCATION						
BETWEEEN MH'S						
&						
DRAINAGE AREA	COMMENTS:					
X						
PICTURE NO.						
LOCATION						
BETWEEEN MH'S						
&						
DRAINAGE AREA	COMMENTS:					
X						
PICTURE NO.						
LOCATION						
BETWEEEN MH'S						
&						
DRAINAGE AREA	COMMENTS;					
X						
PICTURE NO.						
LOCATION						
BETWEEEN MH'S						
&						
DRAINAGE AREA	COMMENTS					
X						
PICTURE NO.						

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	10/06/09
BRASTED PLACE	3355	5462	8"	1188	TIME	7:45 AM
GROVE STREET	5871	5868	8"	1001	INITIAL	S.B.
MCCALL STREET	1761	4622	8"	792	BOMBS	LIQUID SMOKE
HARTWELL AVENUE	5867	5558	8"	802	TOTAL FT.	3783

LOCATION	BRASTED PLACE/HARTWELL AVENUE
BETWEEEN MH'S	3355-1873-1872-5868-5463-3462
&	
DRAINAGE AREA	COMMENTS
X	LOOKS GOOD
PICTURE NO.	
LOCATION	GROVE STREET/HARTWELL AVENUE
BETWEEEN MH'S	5871-5870-5869-5867-5868
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	MCCALL STREET/HARTWELL AVENUE
BETWEEEN MH'S	1761-1875-1874-4922
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	HARTWELL STREET/GROVE STREET
BETWEEEN MH'S	5868-5867-4622-5637-4619-5554-5558
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS
X	
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	10/06/09
RACINE AVENUE	1709	1893	8"	469	TIME	9:45 AM
RACINE AVENUE	1893	4761	8"	806	INITIAL	S.B.
BROADWAY STREET	5559	4762	10"	720	BOMBS	LIQUID SMOKE
BROADWAY STREET	4762	5472	8"	895	TOTAL FT.	2890

LOCATION	221 RACINE AVENUE
BETWEEEN MH'S	1709-1897-1893
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	237 RACINE AVENUE
BETWEEEN MH'S	1893-1894-1895-4761
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	BROADWAY STREET/HARTWELL AVENUE
BETWEEEN MH'S	5559-5560-5561-4761-4762
&	
DRAINAGE AREA	COMMENTS;
X	LOOKS GOOD
PICTURE NO.	
LOCATION	BROADWAY STREET/OAKLAND AVENUE
BETWEEEN MH'S	5472-4494-5470-5471-4762
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS
X	
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	10/06/09
PEWAUKEE ROAD	3952	3095	12"	1036	TIME	11:00 AM
INDUSTRAIL COURT	3093	3095	12"	950	INITIAL	S.B.
PEWAUKEE ROAD	3095	3098	12"	714	BOMBS	LIQUID SMOKE
PEWAUKEE ROAD	3100	3102	12"	993	TOTAL FT.	3693

LOCATION	PEWAUKEE ROAD/NORTHVIEW ROAD
BETWEEEN MH'S	3952-3091-1927-3092-3095
&	
DRAINAGE AREA	COMMENTS
X	LOOKS GOOD
PICTURE NO.	
LOCATION	INDUSTRAIL COURT/PEWAUKEE
BETWEEEN MH'S	3093-3094-3096-3095
&	
DRAINAGE AREA	COMMENTS:LEAKS BETWEEN CONCRETE SLAB AND THE STONE
X	
PICTURE NO.	33-34
LOCATION	PEWAUKEE ROAD
BETWEEEN MH'S	3095-3097-3098
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	PEWAUKEE ROAD
BETWEEEN MH'S	3098-3099-3100-3101-3102
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	
X	COMMENTS
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	10/08/09
METAL TEK PARKING LOT	2748	3996	10"	1143	TIME	7:30 AM
METAL TEK DRIVE	3997	3999	10"	786	INITIAL	S.B.
METAL TEK DRIVE	3999	4003	10"	742	BOMBS	LIQUID SMOKE
METAL TEK DRIVE	2749	3593	10"	625	TOTAL FT.	3296

LOCATION	METAL TEK PAKING LOT
BETWEEEN MH'S	2748-3991-3992-14290-3994-3995-3996
&	
DRAINAGE AREA	COMMENTS
X	LOOKS GOOD
PICTURE NO.	MANHOLE #14290 NEDS HEAVY CLEANING
LOCATION	METAL TEK DRIVE-RIGHT OF BUILDING
BETWEEEN MH'S	3997-3996-3998-3999
&	
DRAINAGE AREA	COMMENTS:
X	LOOKING GOOD
PICTURE NO.	
LOCATION	METAL TEK DRIVE-BEHIND SHIPPING 7 RECEIVING BUILDING
BETWEEEN MH'S	3999-4000-4001-4002-4003
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	METAL TEK DRIVE-BEHIND GATE 3
BETWEEEN MH'S	3593-2747-2748-2749
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS
X	
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	10/08/09
EASEMENT	1105	5572	24"	863	TIME	9:15 AM
EASEMENT	5572	5571	24"	469	INITIAL	S.B.
EASEMENT	5571	5570	24"	684	BOMBS	LIQUID SMOKE
EASEMENT	5570	3593	24"	1003	TOTAL FT.	3019

LOCATION	EASEMENT/BIKE PATH
BETWEEEN MH'S	1105-3792-5573-3591-3592-5572
&	
DRAINAGE AREA	COMMENTS
X	LOOKS GOOD
PICTURE NO.	
LOCATION	EASEMENT/BIKE PATH
BETWEEEN MH'S	3592-5572-3588-5571-5572
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	EASEMENT/BIKE PATH
BETWEEEN MH'S	5571-3589-3590-5570
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	EASEMENT/BIKE PATH
BETWEEEN MH'S	5570-3587-5569-3593
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS
X	
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	10/08/09
ST. PAUL AVENUE	3791	3787	8"	905	TIME	11:00 AM
ST. PAUL AVENUE	3787	3793	8"	686	INITIAL	S.B.
ST. PAUL AVENUE	3793	1102	8"	870	BOMBS	LIQUID SMOKE
					TOTAL FT.	2467

LOCATION	1418 ST. PAUL AVENUE
BETWEEEN MH'S	3791-3790-3789-3787
&	
DRAINAGE AREA	COMMENTS: #1418 ST. PAUL AVENUE, CRACK AROUND MANHOLE IN DRIVEWAY.
X	
PICTURE NO.	37-38
LOCATION	ST. PAUL AVENUE
BETWEEEN MH'S	3787-1105-1104-1103-3795
&	
DRAINAGE AREA	COMMENTS: STORM GRATE NEXT TO MANHOLE #3788 IS LEAKING SMOKE.
X	
PICTURE NO.	39-40
LOCATION	ST. PAUL AVENUE
BETWEEEN MH'S	3793-3794-3795-1102
&	
DRAINAGE AREA	COMMENTS:CRACK IN BETWEEN ROAD AND DRIVEWAY FOR COOPER POWER.
X	MANHOLE #3794 IS DAMMED UP. PIPE I/2 FULL OF WATER. USTREAM MANHOLE # 3795
PICTURE NO.	IS DRY. PICTURES 41-42
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENT:
X	
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS
X	
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	10/08/09
NORTH PRAIRIE AVENUE	1365	5728	15"	890	TIME	12:15 PM
RIVER WALK DRIVE	4070	5896	8"	815	INITIAL	S.B.
WEST ST. PAUL AVENUE	4746	4748	10"	761	BOMBS	LIQUID SMOKE
WEST ST. PAUL AVENUE	4748	3683	10"	603	TOTAL FT.	3069

LOCATION	NORTH PRAIRIE AVENUE/RIVER WALK DRIVE
BETWEEEN MH'S	1365-5583-4588-5784-4554-5896-4590-5728
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	RIVER WALK DRIVE/NORTH PRAIRIE AVENUE
BETWEEEN MH'S	4070-4069-4068-5891
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	ST. PAUL AVENUE/NORTH PRAIRIE AVENUE
BETWEEEN MH'S	4746-4747-4749-4748
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	ST. PAUL AVENUE/FAIRVIEW AVENUE
BETWEEEN MH'S	4748-5728-1111-3683
&	
DRAINAGE AREA	
X	COMMENTS:
PICTURE NO.	LOOKS GOOD
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS
X	
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	10/08/09
DRESSER AVENUE	18482	4747	8"	824	TIME	1:30PM
WASHINGTON STREET	4600	2443	8"	807	INITIAL	S.B.
MOTOR AVENUE	19252	439	8"	1015	BOMBS	LIQUID SMOKE
MOTOR AVENUE	1439	418	8"	957	TOTAL FT.	3603

LOCATION	DRESSER AVENUE/WASHINGTON STREET
BETWEEEN MH'S	18482-18481-18480-4600-4747
&	
DRAINAGE AREA	COMMENTS
X	LOOKS GOOD
PICTURE NO.	
LOCATION	WASHINGTON STREET/LINDBERGH AVENUE
BETWEEEN MH'S	4606-4931-4689-4688-2443
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	MOTOr AVENUE/HINE AVENUE
BETWEEEN MH'S	19253-19252-4931-439
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	MOTOR AVENUE/NORTH PRAIRIE AVENUE
BETWEEEN MH'S	439-2448-417-418-440-4748
&	
DRAINAGE AREA	
X	COMMENTS:
PICTURE NO.	LOOKS GOOD
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	
X	COMMENTS
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	10/08/09
HINE AVENUE	19252	171	8"	1003	TIME	2:45 PM
GREENWOOD AVENUE	417	570	8"	630	INITIAL	S.B.
WASHINGTON STREET	4688	1030	8"	1217	BOMBS	LIQUID SMOKE
FAIRVIEW AVENUE	1111	4592	8"	784	TOTAL FT.	3639

LOCATION	HINE AVENUE/LINDBERGH AVENUE
BETWEEEN MH'S	19252-2442-2443-170-171
&	
DRAINAGE AREA	COMMENTS
X	COMMENTS: STORM GRATE LEAKING SMOKE ON THE EAST SIDE OF HINE AVENUE.
PICTURE NO.	NEXT TO MANHOLE #19252 PICTURES 43-44
LOCATION	GREENFIELD AVENUE/MOTOR AVENUE
BETWEEEN MH'S	417-2451-2450-5709
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	WASHINGTON STREET/DOPP STREET
BETWEEEN MH'S	4688-4691-4693-4591-443-1031-1030
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	FAIRVIEW AVENUE/MOTOR AVENUE
BETWEEEN MH'S	1111-419-3658-3659-3661-3660-4592
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS
X	
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA,WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	10/08/09
MOTOR AVENUE	2658	435	8"	1116	TIME	4:00 PM
					INITIAL	S.B.
					BOMBS	LIQUID SMOKE
					TOTAL FT.	1116

LOCATION	MOTOR AVENUE
BETWEEEN MH'S	3658-3662-3664-3665-420-2378-434-435
&	
DRAINAGE AREA	COMMENTS
X	LOOKS GOOD
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS
X	
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS:
X	
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS:
X	
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS
X	
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	10/14/09
WILLARD LANE	4328	4330	8"	774	TIME	7:30 AM
WILLARD LANE	4330	4401	8"	687	INITIAL	S.B.
EMSLIE DRIVE	4400	4401	8"	811	BOMBS	LIQUID SMOKE
EMSLIE DRIVE	4401	4397	8"	967	TOTAL FT.	3239

LOCATION	WILLARD LANE/DENTON DRIVE
BETWEEEN MH'S	4328-4329-4327-4330
&	
DRAINAGE AREA	COMMENTS
X	LOOKS GOOD
PICTURE NO. 43	
LOCATION	WOLLARD LANE/DIANE COURT
BETWEEEN MH'S	4330-4331-4332-4333-4401
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	EMSLIE DRIVE/EMSLIE COURT
BETWEEEN MH'S	4400-4399-4398-4397-4401
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	2841 EMSLIE DRIVE
BETWEEEN MH'S	4401-4402-2-4348-4347
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS:
X	
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	10/14/09
PATRICK LANE	4347	4337	8"	578	TIME	8:45 AM
KERI COURT	4337	4340	8"	572	INITIAL	S.B.
KERI COURT	4337	4336	8"	482	BOMBS	SMOKE BOMBS
UNIVERSITY DRIVE	4335	1485	10"	705	TOTAL FT.	2338

LOCATION	PAATRICK LANE/EMSLIE DRIVE
BETWEEEN MH'S	4347-4341-4337
&	
DRAINAGE AREA	COMMENTS
X	LOOKS GOOD
PICTURE NO.	
LOCATION	KERI COURT/PATRICK LANE
BETWEEEN MH'S	4337-4338-4339-4340
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	KERI COURT/NORTH UNIVERSITY DRIVE
BETWEEEN MH'S	4337-4335-4336
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	UNIVERSITY DRIVE/PEBBLE VALLEY ROAD
BETWEEEN MH'S	4335-4334-1499-1486-1485
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS
X	
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	10/14/09
PRIVATE ROAD	1618	1482	8-10"	864	TIME	10:30 AM,
PEBBLE VALLEY ROAD	1499	1502	15"	792	INITIAL	S.B.
PEBBLE VALLEY ROAD	1502	4403	15"	916	BOMBS	LIQUID SMOKE
EASEMENT	4404	1589	30"	632	TOTAL FT.	3204

LOCATION	PRIVATE ROAD/UNIVERSITY DRIVE
BETWEEEN MH'S	1618-1617-1616-1485-1484-1482
&	
DRAINAGE AREA	COMMENTS
X	LOOKS GOOD
PICTURE NO. 44	
LOCATION	2601 PEBBLE VALLEY ROAD
BETWEEEN MH'S	1499-1500-1501-1502
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	PEBBLE VALLEY ROAD
BETWEEEN MH'S	1502-1503-1504-1505-4403
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	EASEMENT/PEBBLE VALLEY ROAD
BETWEEEN MH'S	4404-4403-1591-1590-1589
&	
DRAINAGE AREA	COMMENTS:
X	LOOKS GOOD
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS
X	
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	10/14/09
EASEMENT	1589	1600	30"	690	TIME	12:15 AM
					INITIAL	S.B.
					BOMBS	LIQUID SMOKE
					TOTAL FT.	690

LOCATION	EASEMENT
BETWEEEN MH'S	1589-1592-1593-1600
&	
DRAINAGE AREA	COMMENTS
X	LOOKS GOOD
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS:
X	
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS:
X	
PICTURE NO.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS:
X	
PICTURE NO 45.	
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS
X	
PICTURE NO.	

SMOKE TESTING FOR WAUKESHA, WI DISTRICT CREW - S.B.

ON	FROM	TO	SIZE	LENGTH	DATE	10/16/09
MOUNTAIN AVENUE	2378	421	10"	672	TIME	7:30 AM
FAIRVIEW AVENUE	4592	2376			INITIAL	S.B.
GREENWOOD AVENUE	5709	2503	10"	744	BOMBS	LIQUID SMOKE
AMERICAN AVENUE	1030	4694	10"	482	TOTAL FT.	1898

LOCATION	237 MOUNTAIN AVENUE
BETWEEEN MH'S	2378-438-3128-421
&	
DRAINAGE AREA	COMMENTS
X	LOOKS GOOD
PICTURE NO.	

LOCATION	
BETWEEEN MH'S	4592-2377-2376
&	
DRAINAGE AREA	COMMENTS: CAN NOT ACCESS MANHOLES INSIDE HOSPITAL
X	
PICTURE NO.	

LOCATION	GREENWOOD AVENUE
BETWEEEN MH'S	5709-5708-4694-2503
&	
DRAINAGE AREA	COMMENTS: STORM GRATES ON BOTH SIDES OF AVENUE ARE LEAKING SMOKE.
X	BETWEEN MANHOLE 2503 AND 4694
PICTURE NO.	

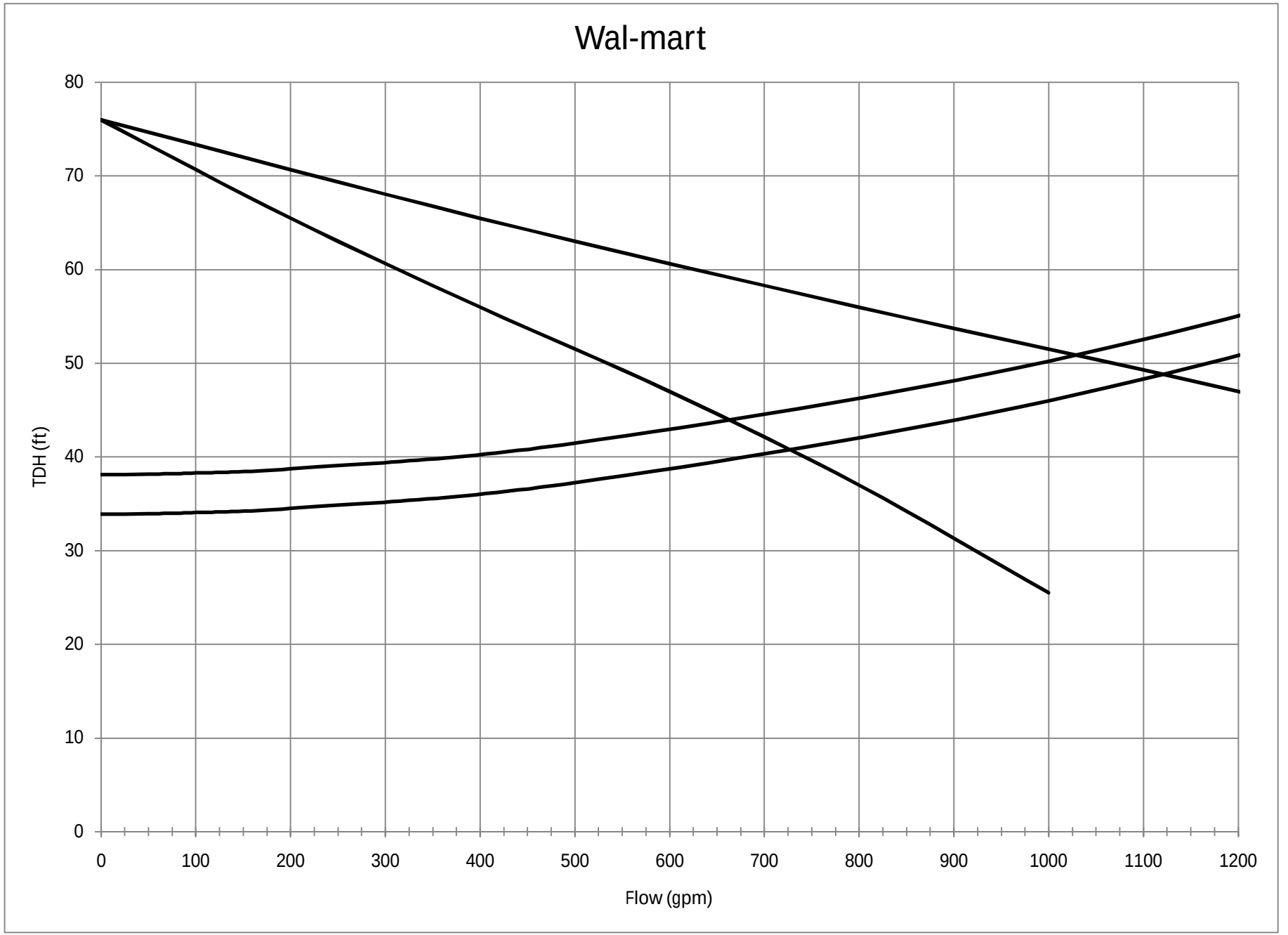
LOCATION	AMERICAN AVENUE
BETWEEEN MH'S	1030-1032-4694
&	
DRAINAGE AREA	COMMENTS: ALL STORM CATCH BASINS AND MANHOLE COVERS BETWEEN MANHOLE
X	1032 AND 4694 ARE LEAKING SMOKE.
PICTURE NO.	45 THRU 56

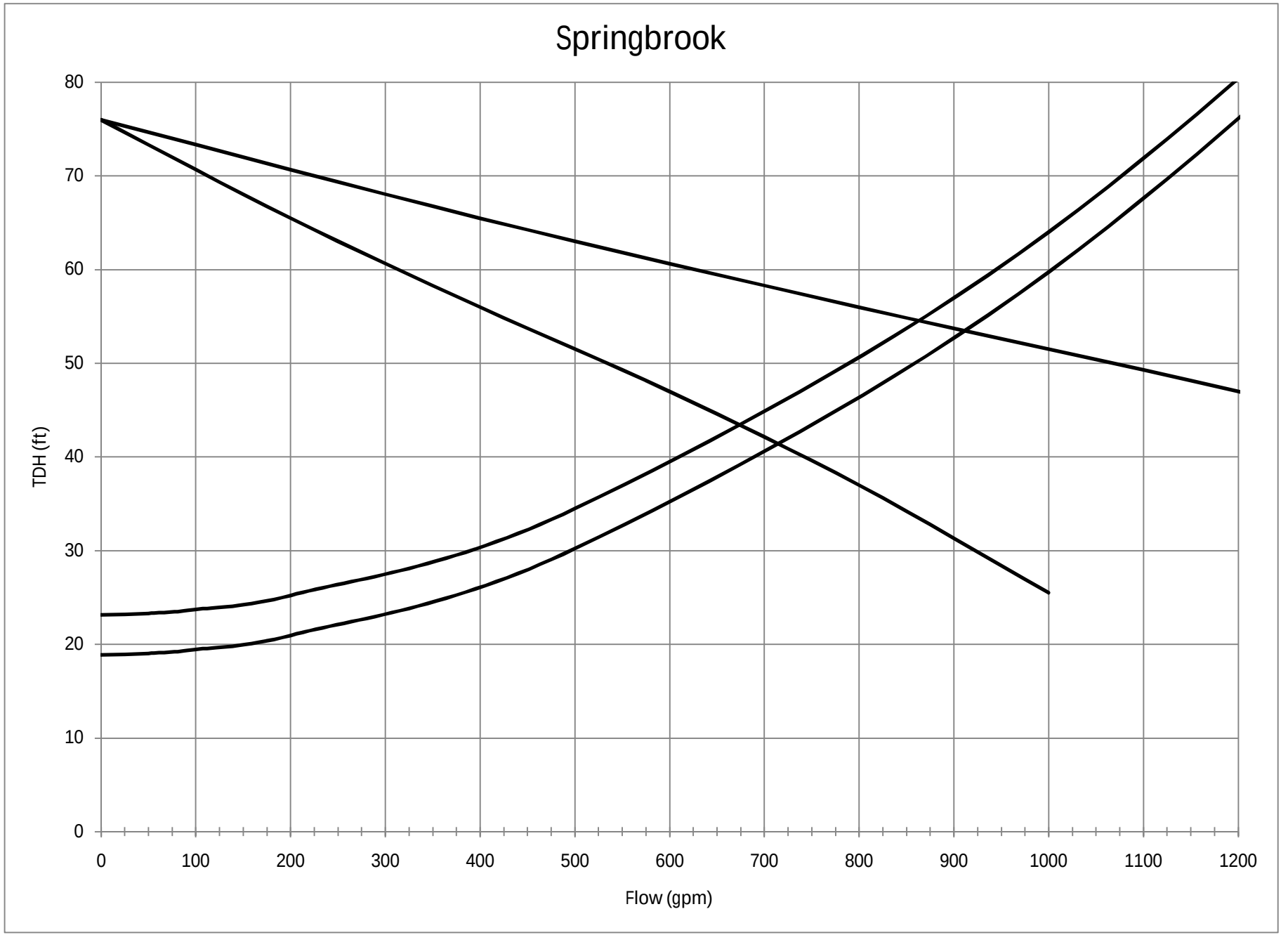
LOCATION	
BETWEEEN MH'S	
&	
DRAINAGE AREA	COMMENTS
X	
PICTURE NO.	

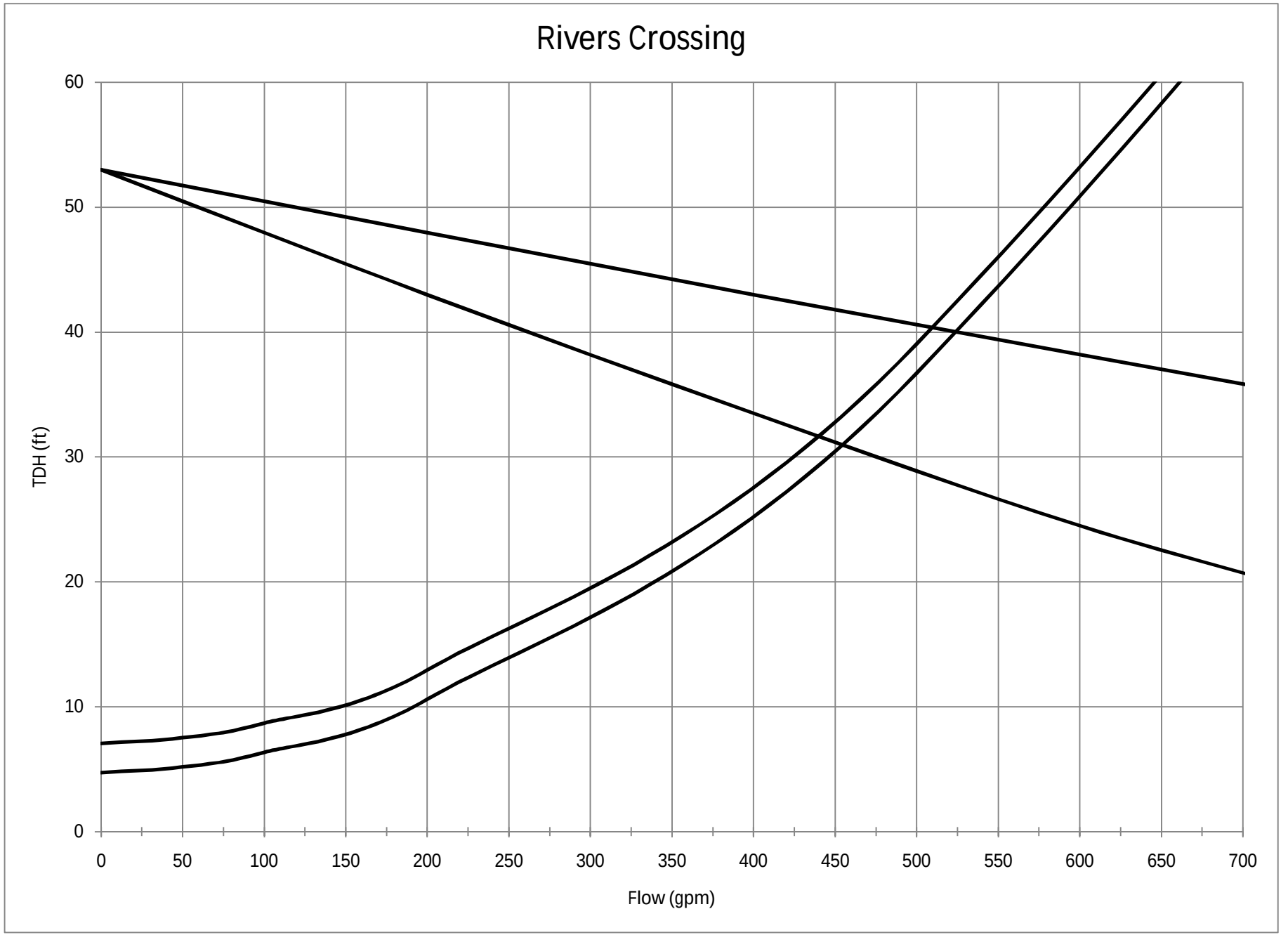
ALL STORM CATCH BASINS AND MANHOL

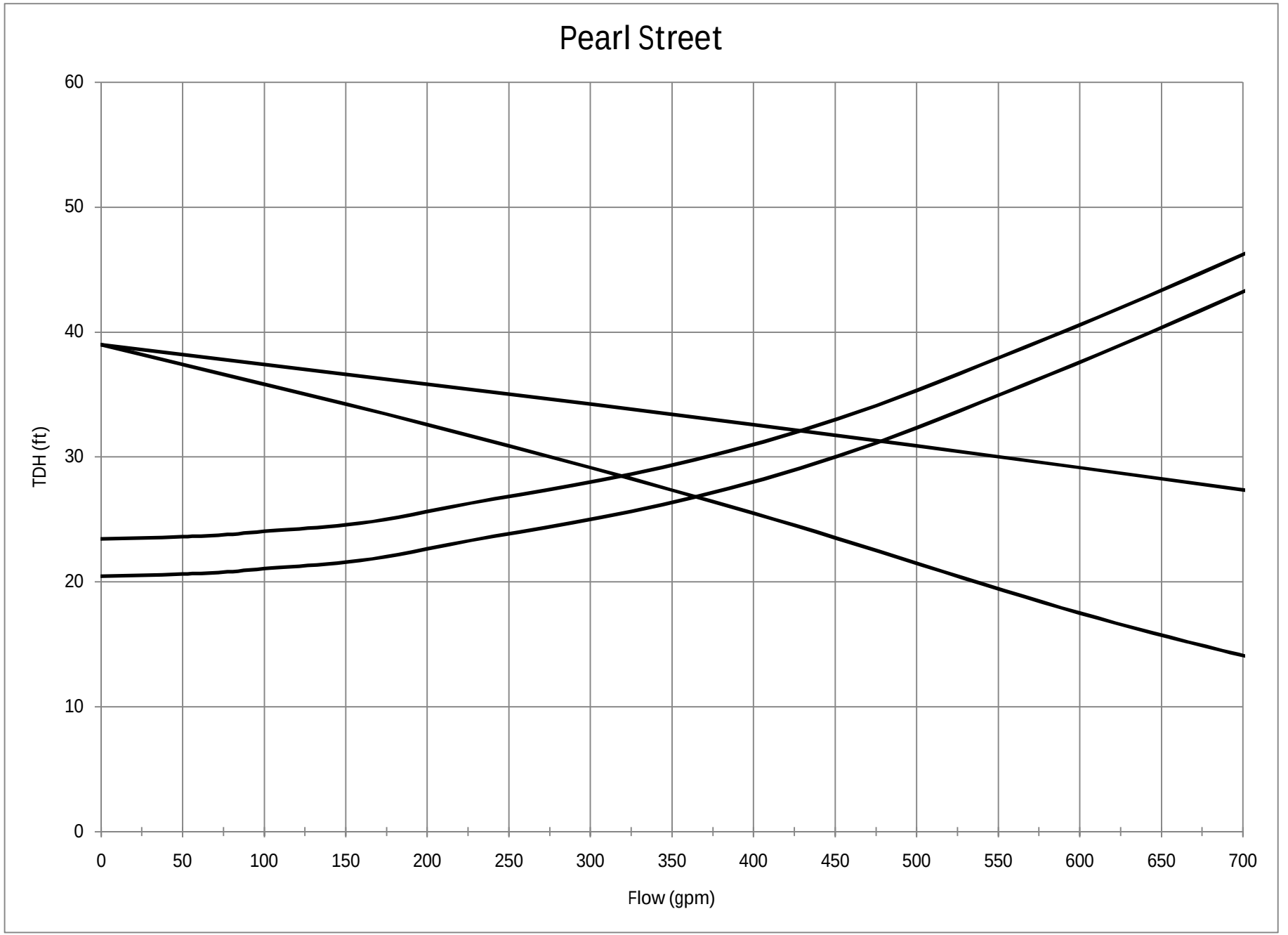
Appendix F

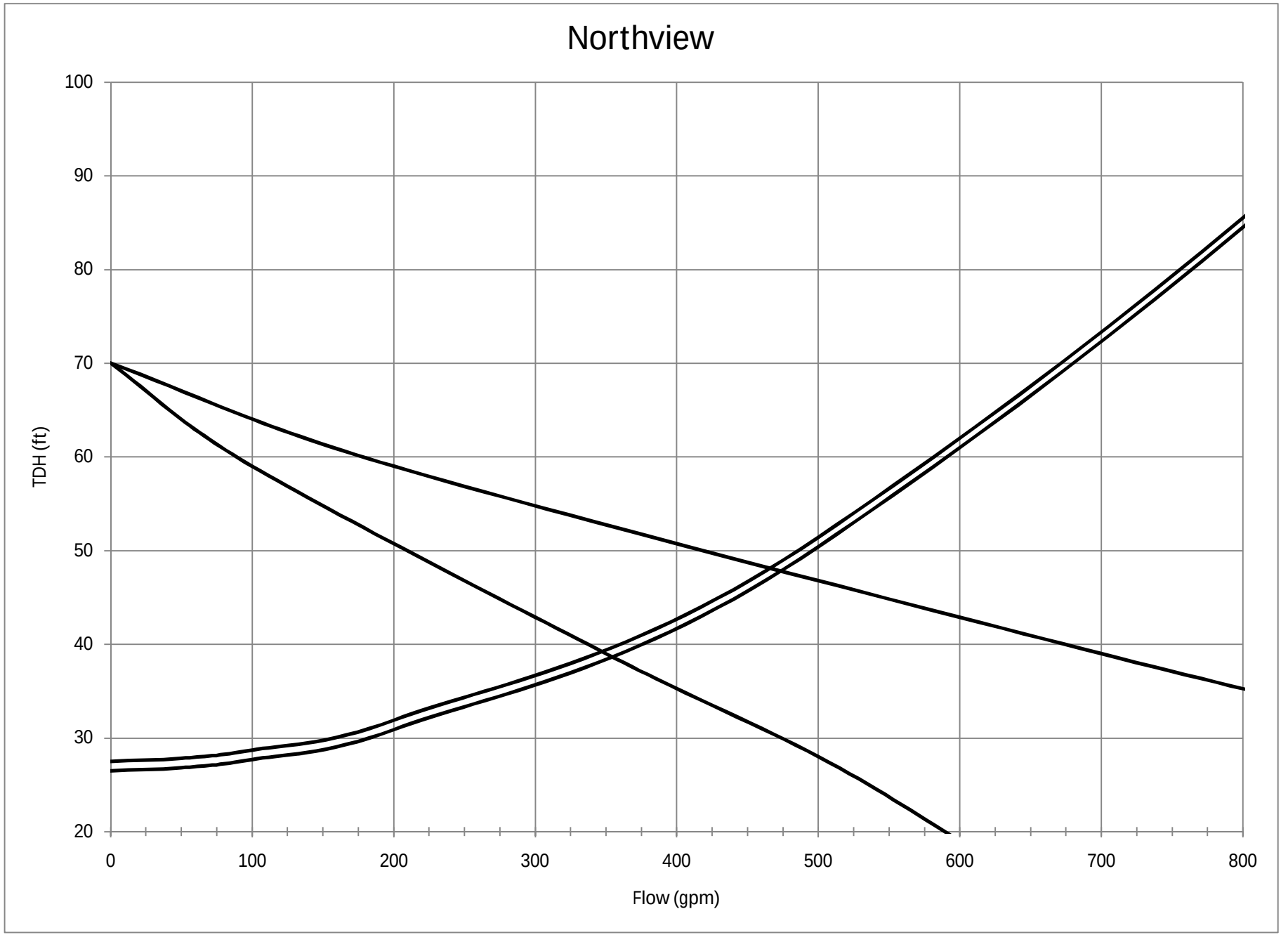
Pump Performance Curves

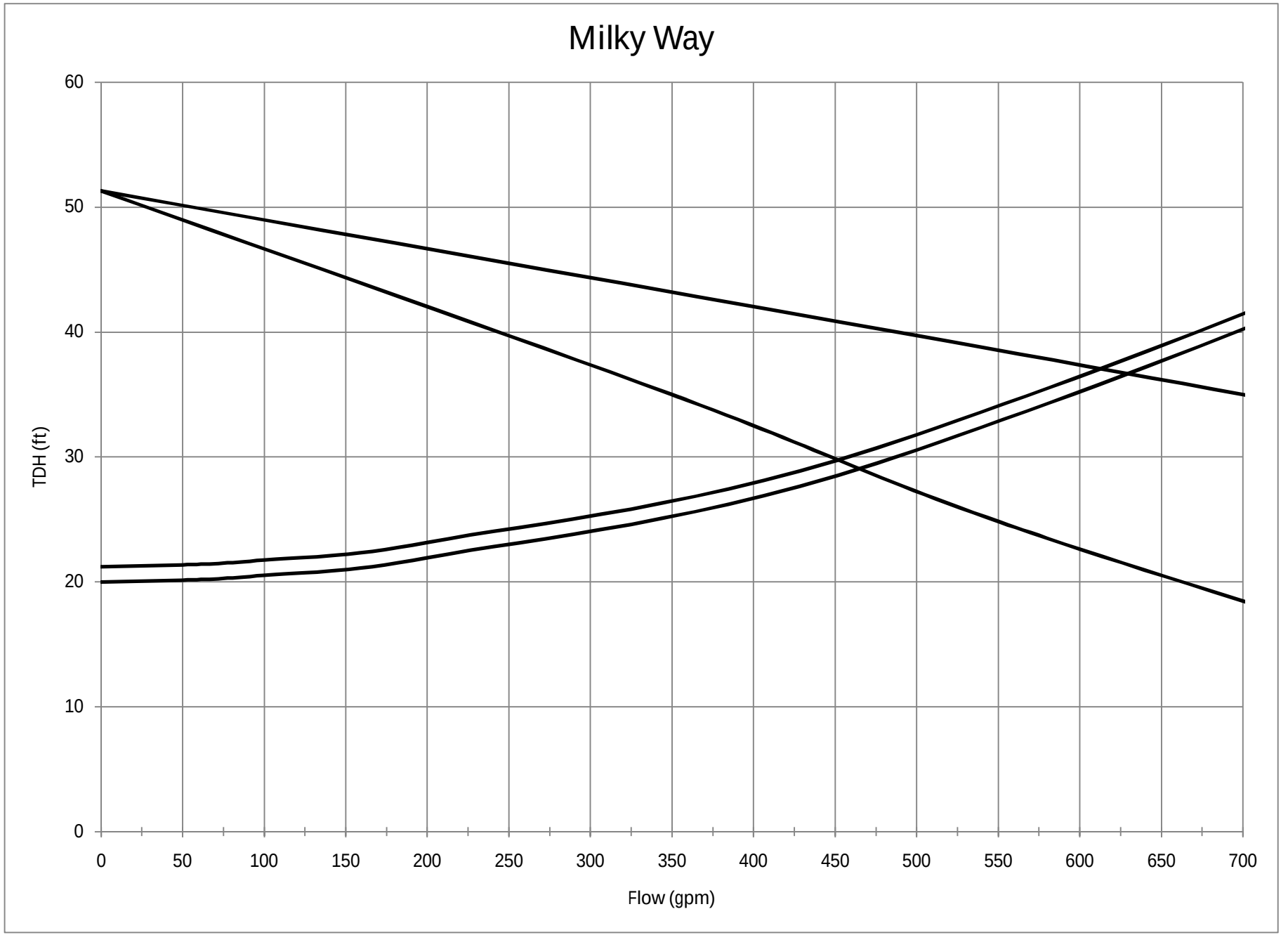

Wal-mart
TDH (ft)
80
70
60
50
40
30
20
10
0
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
Flow (gpm)

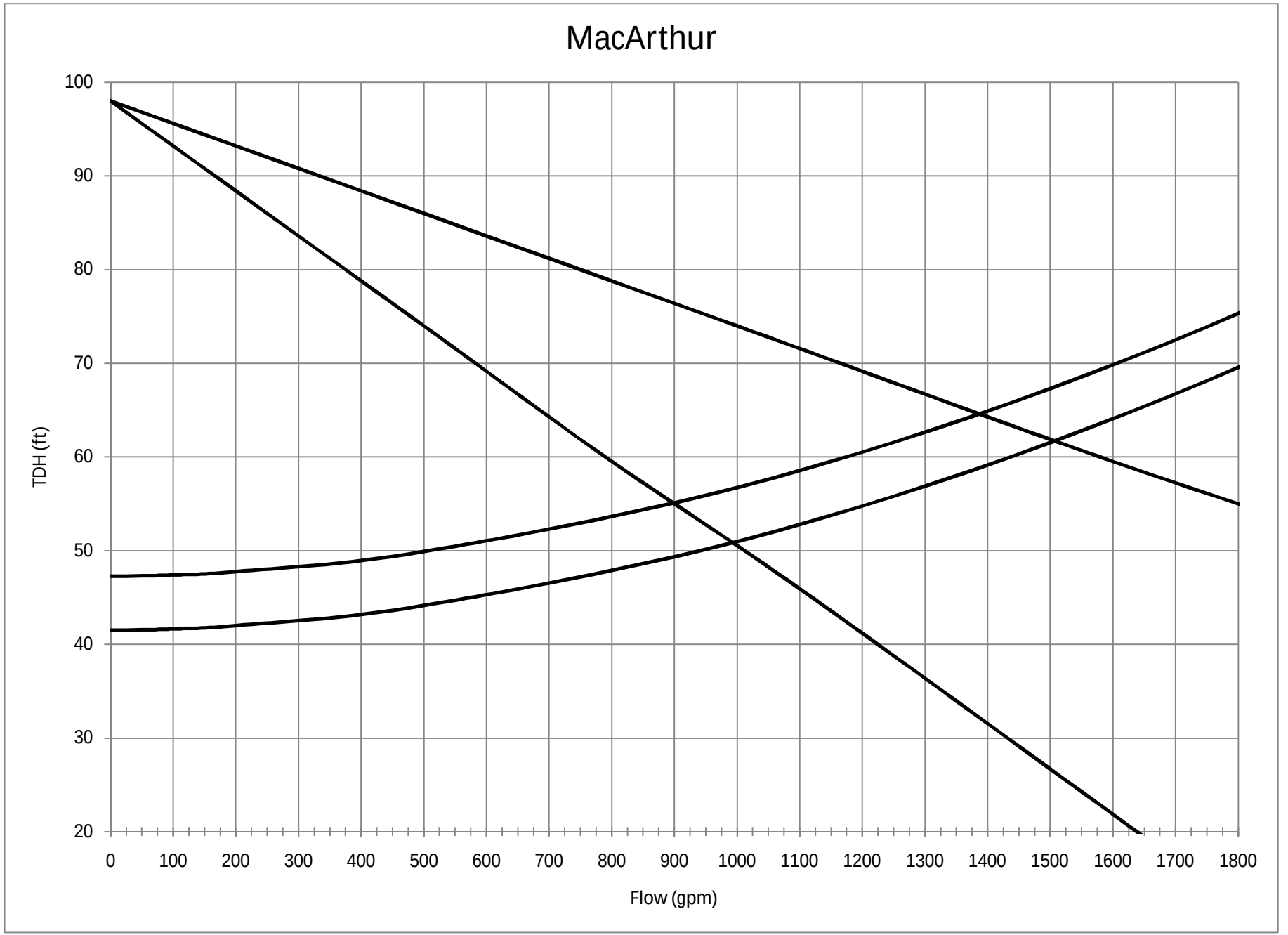

Springbrook
TDH (ft)
80
70
60
50
40
30
20
10
0
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
Flow (gpm)

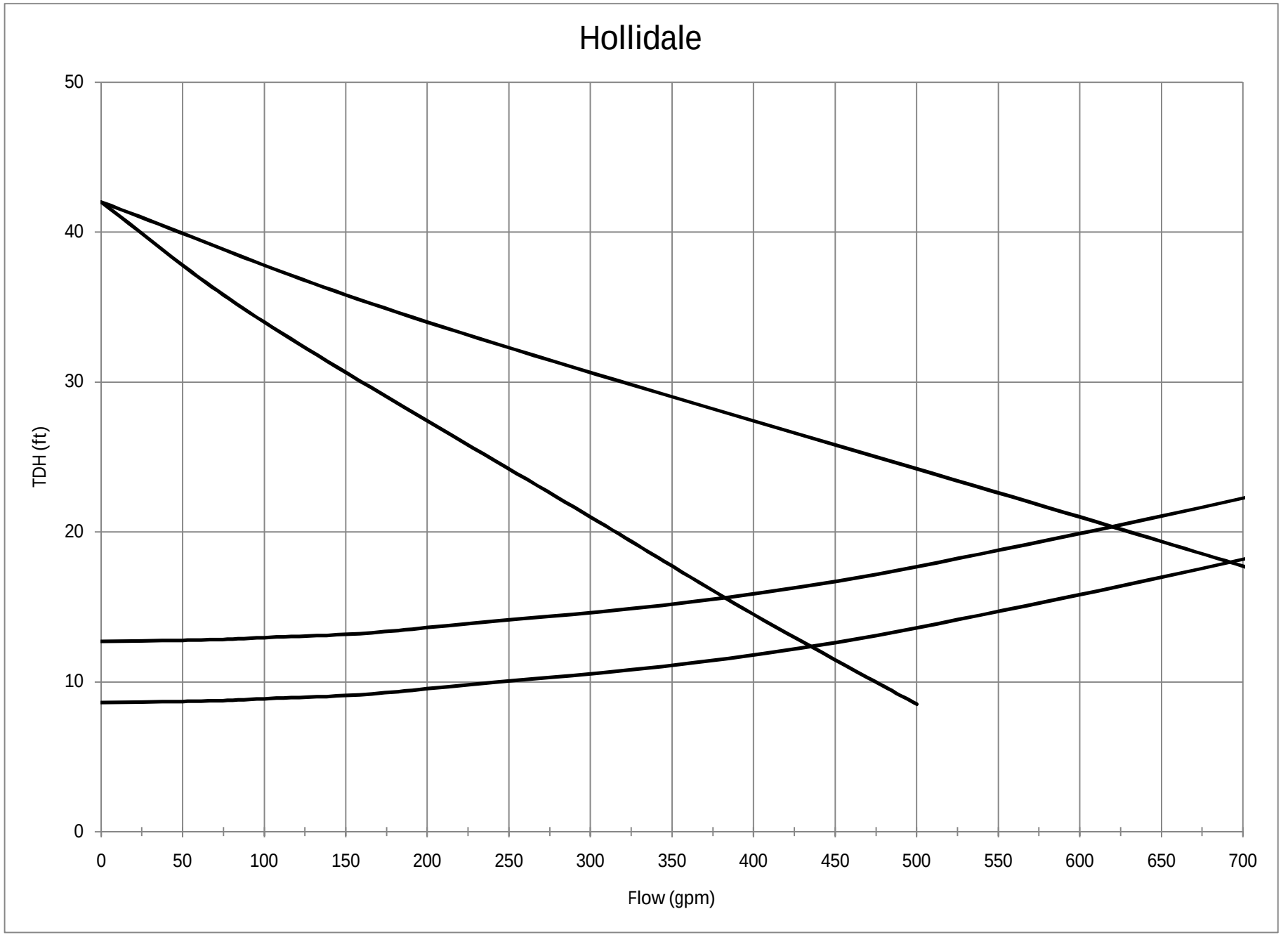

Rivers Crossing
60
50
40
30
20
10
0
TDH (ft)
0
50
100
150
200
250
300
350
400
450
500
550
600
650
700
Flow (gpm)


Pearl Street
60
50
40
30
20
10
0
TDH (ft)
0
50
100
150
200
250
300
350
400
450
500
550
600
650
700
Flow (gpm)

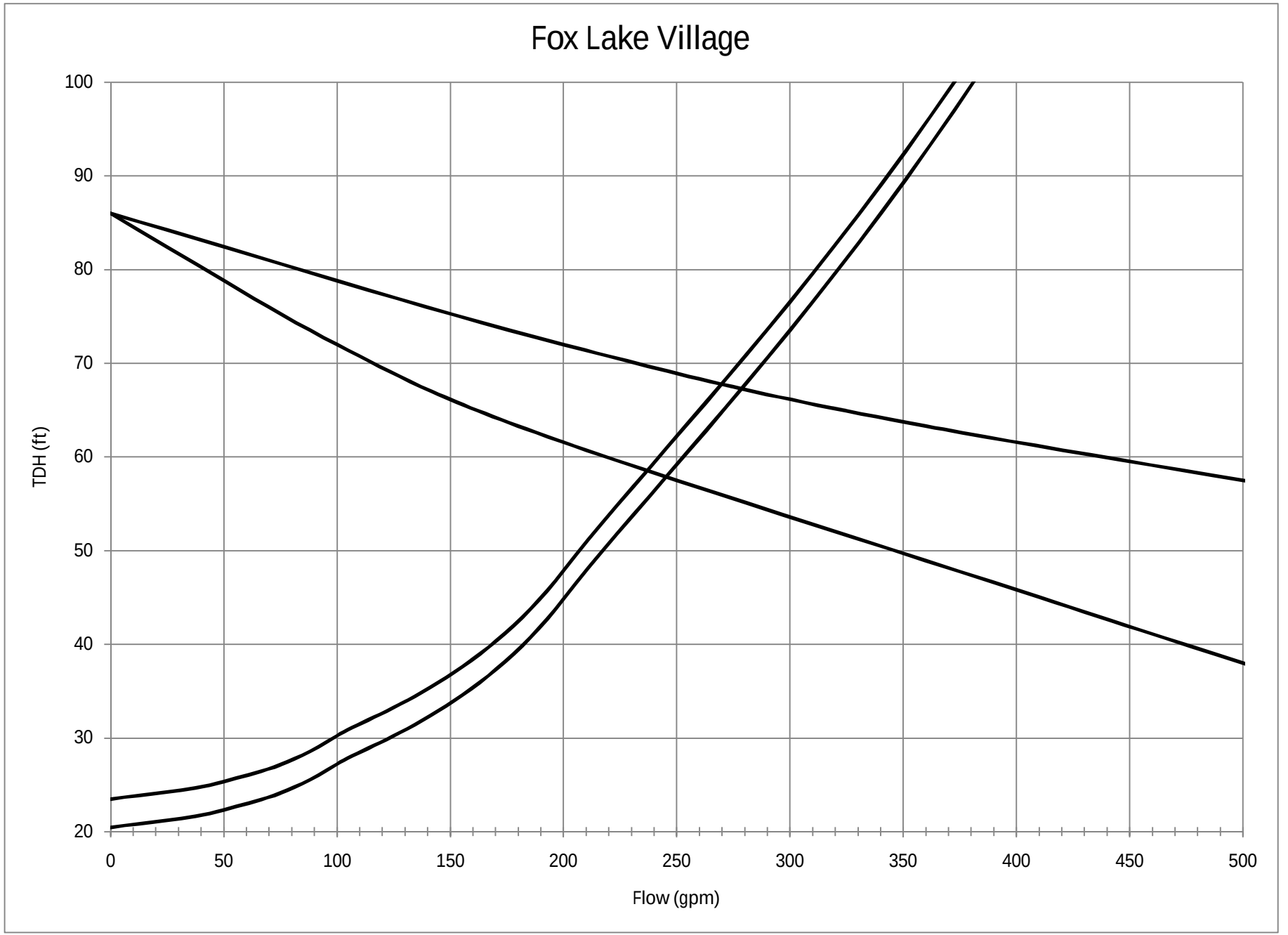

Northview
100
90
80
70
60
50
40
30
20
TDH (ft)
0
100
200
300
400
500
600
700
800
Flow (gpm)

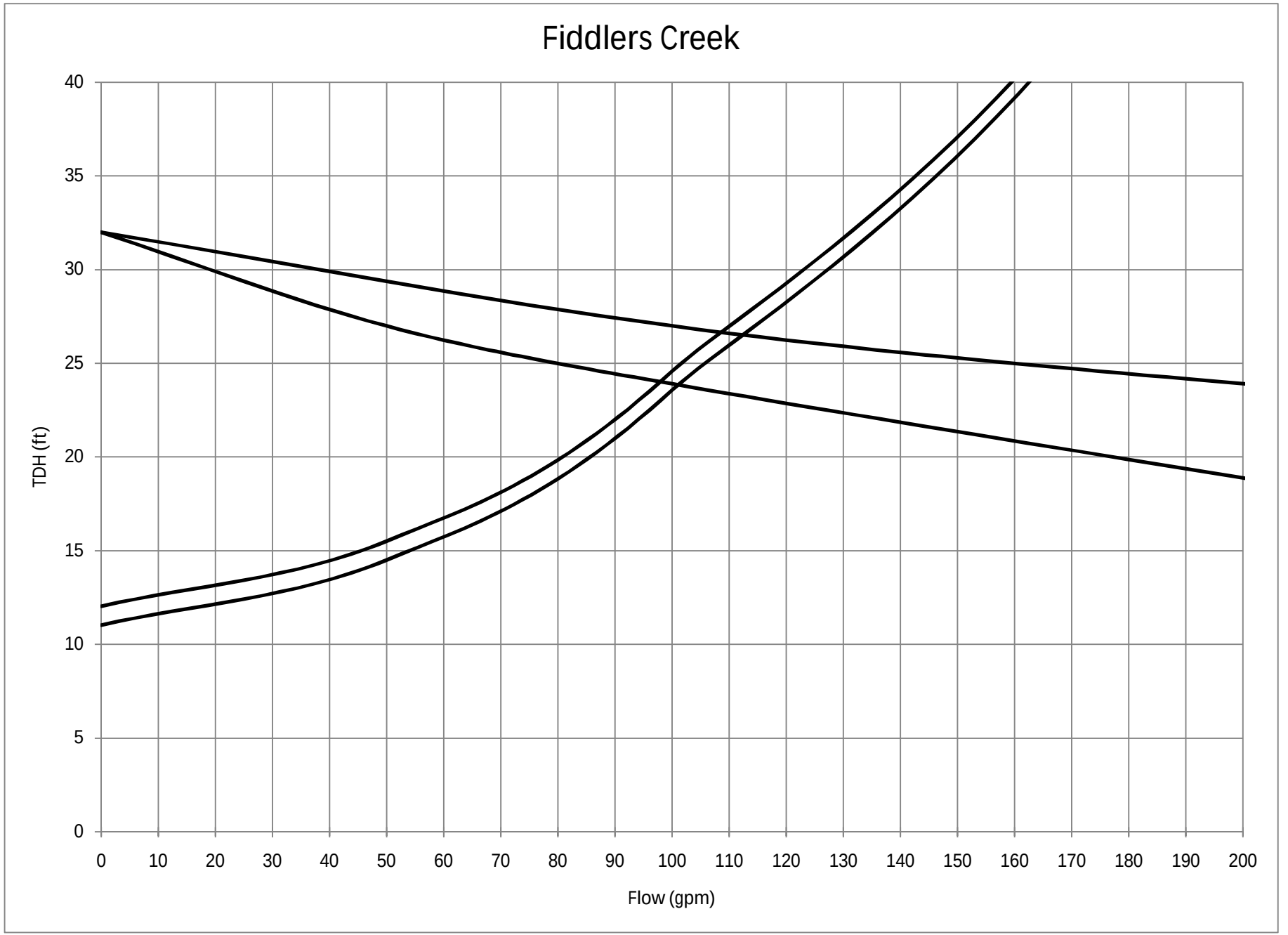

Milky Way
60
50
40
30
20
10
0
TDH (ft)
0
50
100
150
200
250
300
350
400
450
500
550
600
650
700
Flow (gpm)

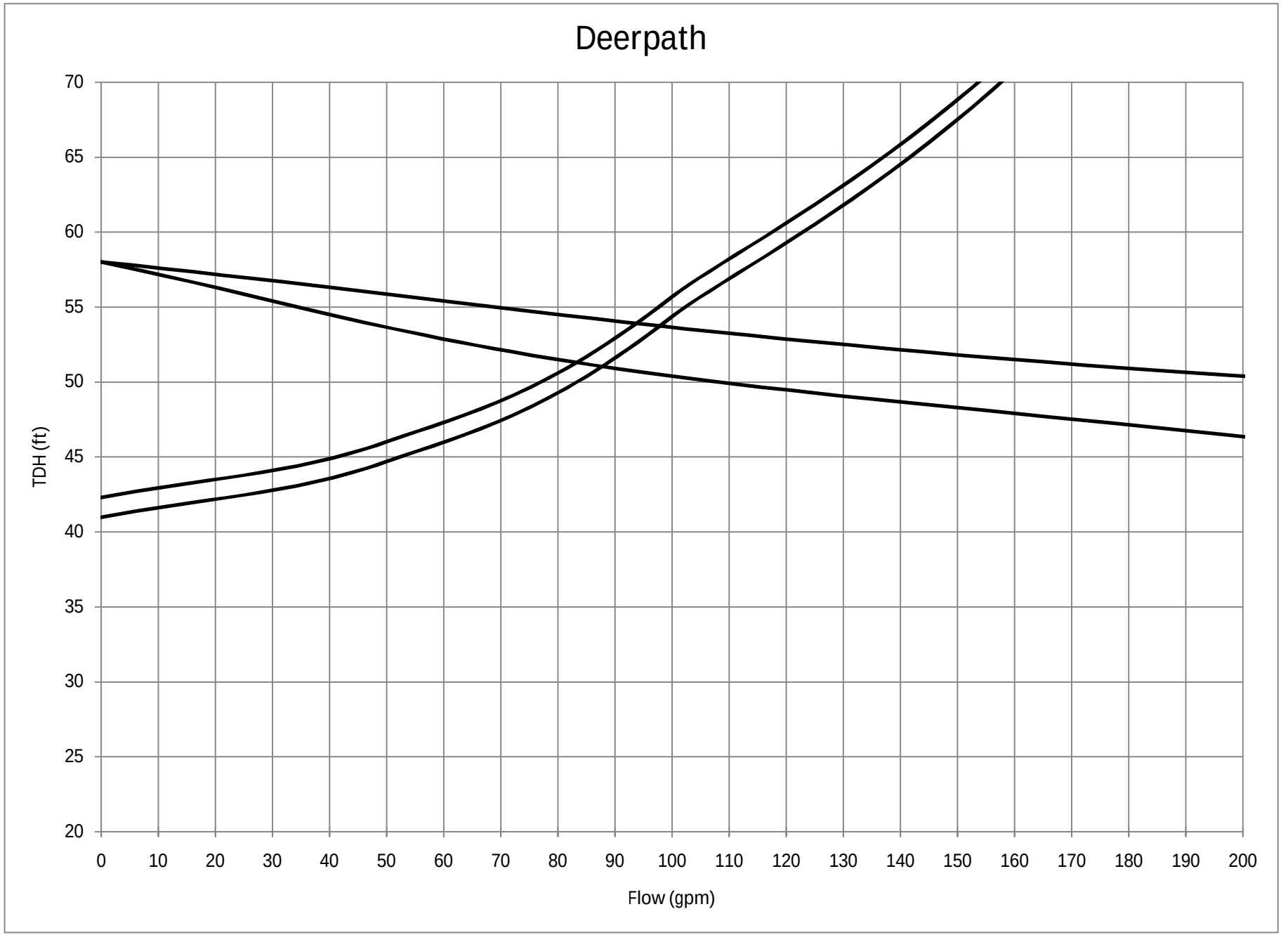

MacArthur
TDH (ft)
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
Flow (gpm)


Hollidale
50
40
30
20
10
0
TDH (ft)
0
50
100
150
200
250
300
350
400
450
500
550
600
650
700
Flow (gpm)

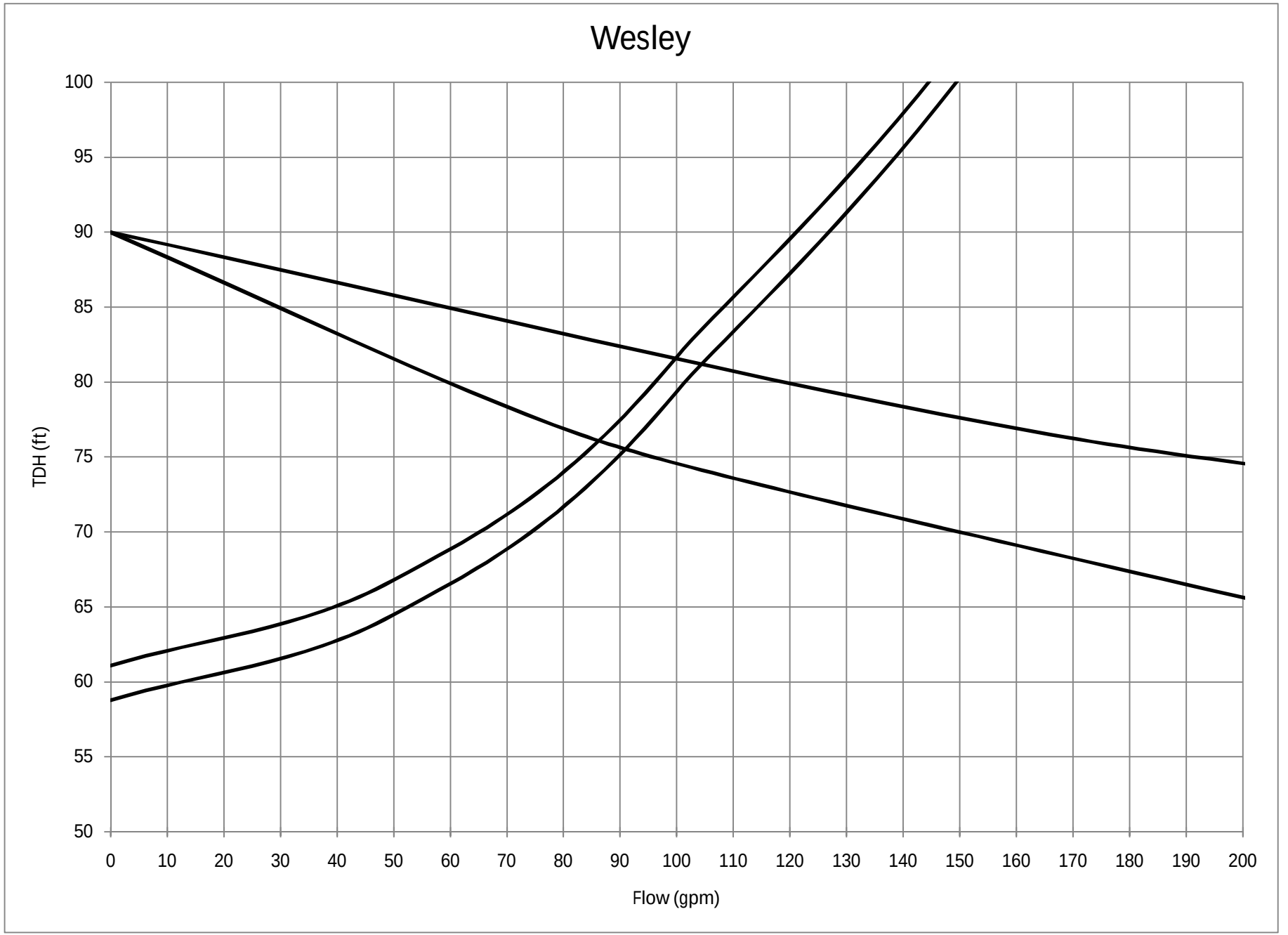

Heritage Hills / Madison
TDH (ft)
100
90
80
70
60
50
40
30
20
0
50
100
150
200
250
300
350
400
450
500
550
600
650
700
Flow (gpm)

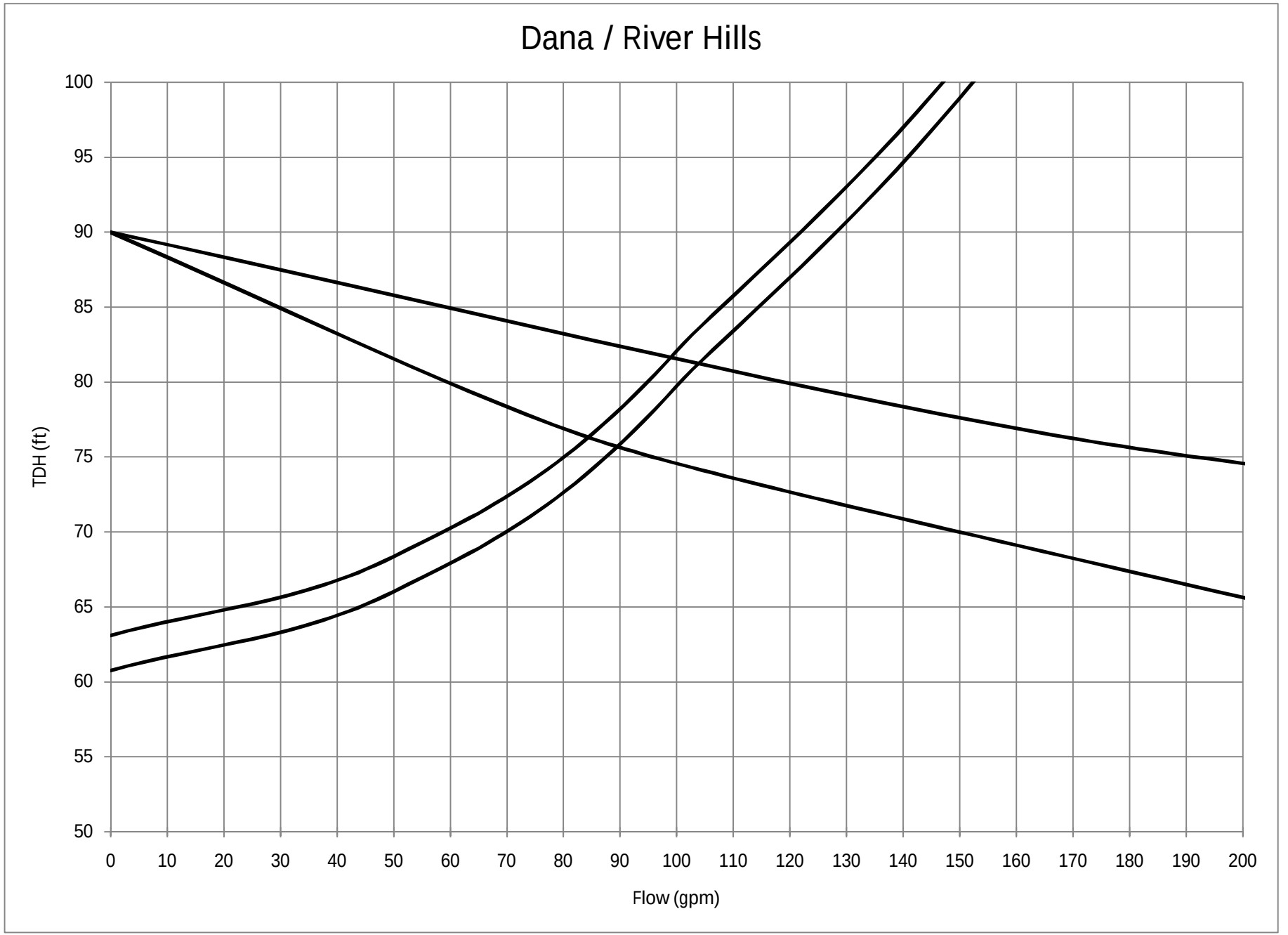

Fox Lake Village
100
90
80
70
60
50
40
30
20
TDH (ft)
0
50
100
150
200
250
300
350
400
450
500
Flow (gpm)

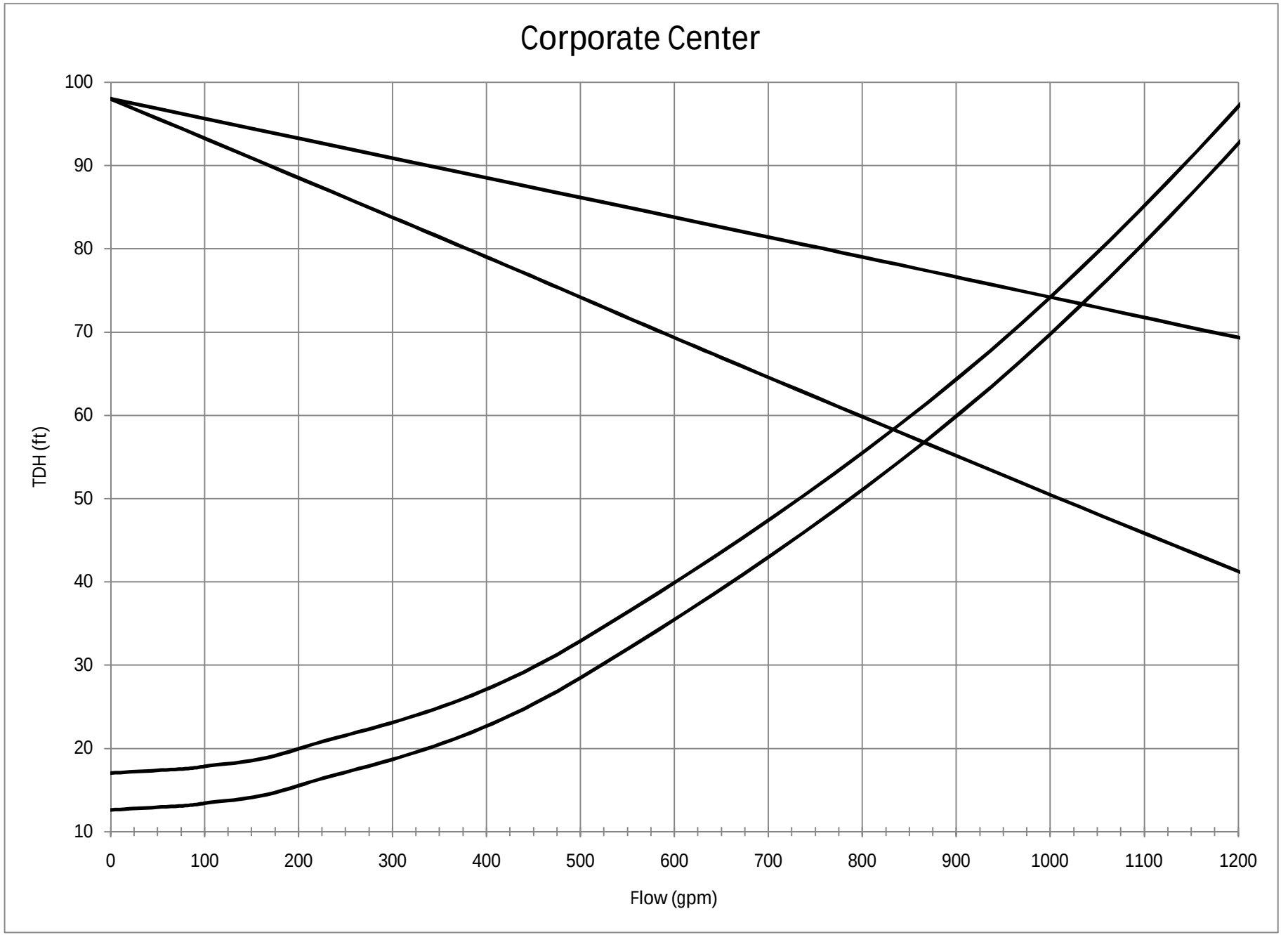

Fiddlers Creek
TDH (ft)
0
5
10
15
20
25
30
35
40
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
160
170
180
190
200
Flow (gpm)

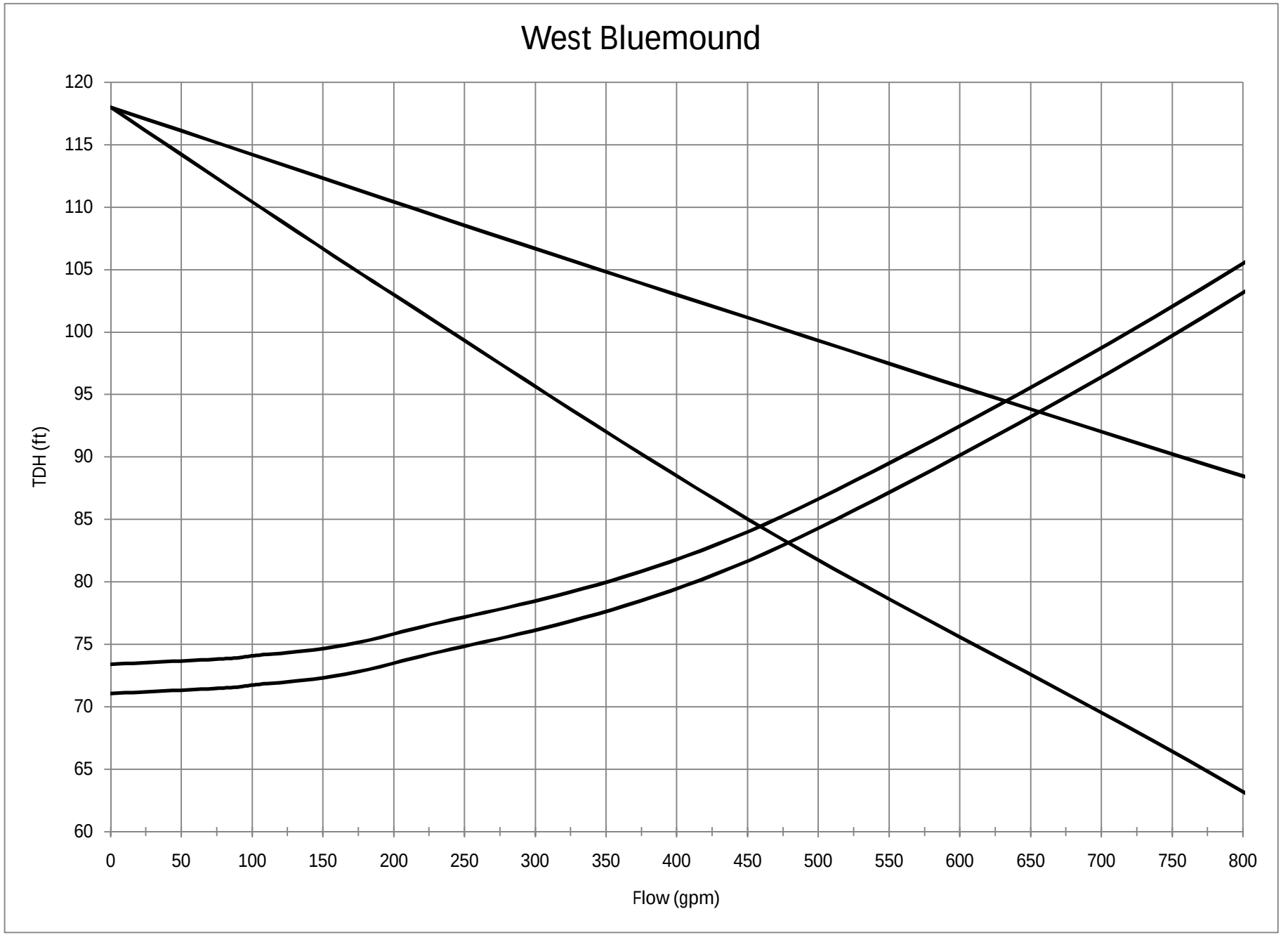

Deerpath
70
65
60
55
50
45
40
35
30
25
20
TDH (ft)
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
160
170
180
190
200
Flow (gpm)

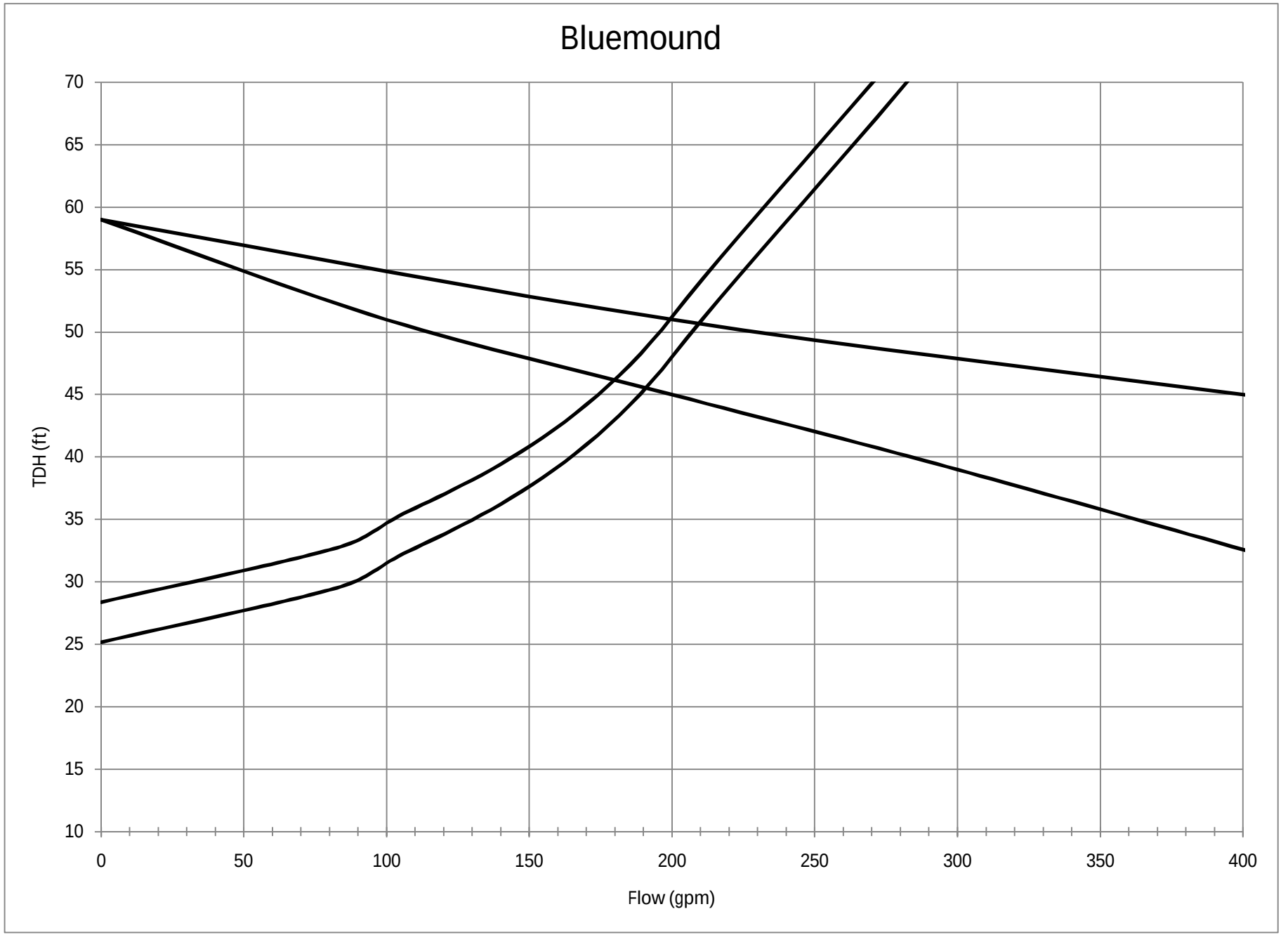

Woodfield
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
TDH (ft)
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
160
170
180
190
200
Flow (gpm)

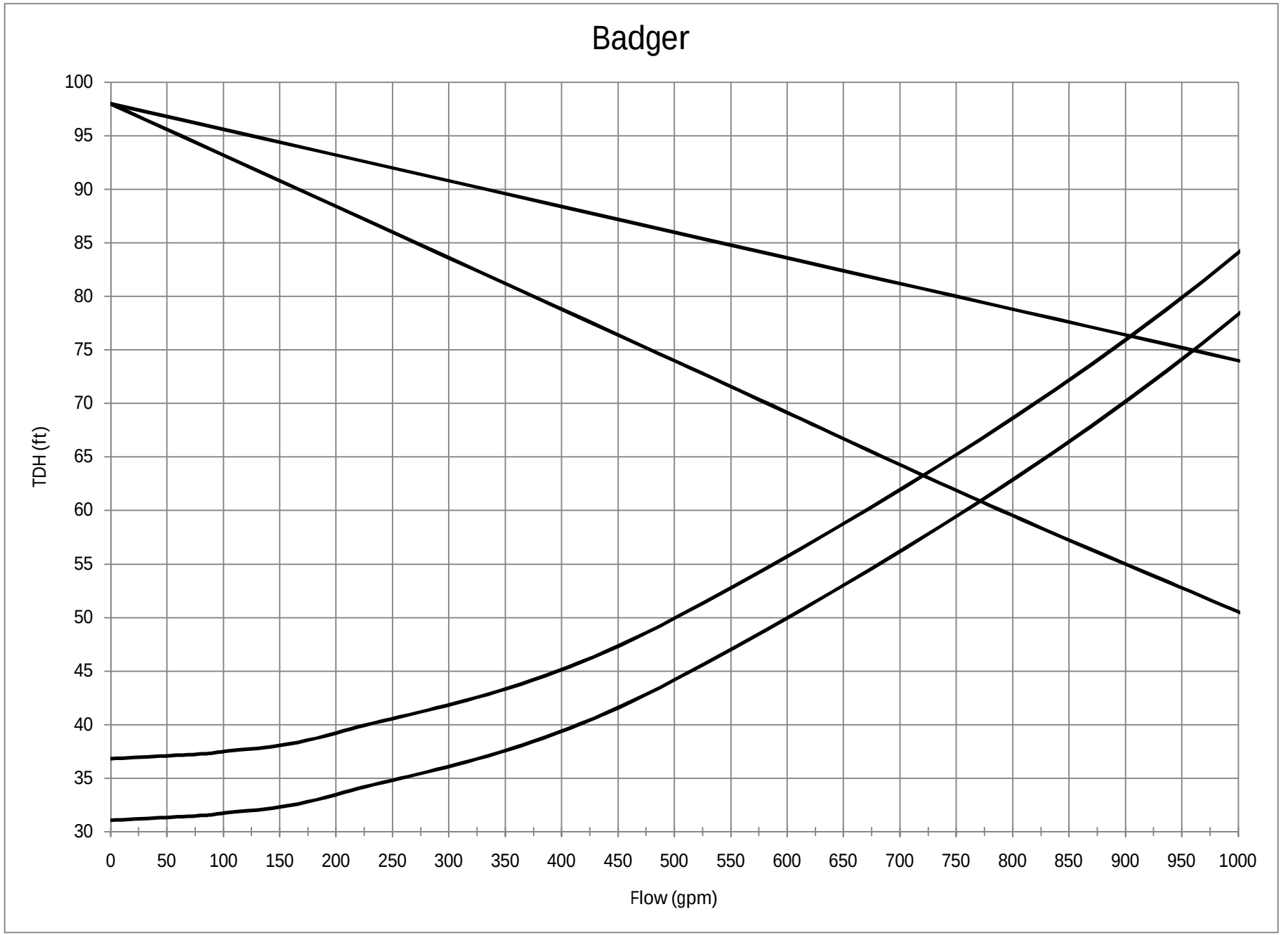

Wesley
TDH (ft)
100
95
90
85
80
75
70
65
60
55
50
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
160
170
180
190
200
Flow (gpm)

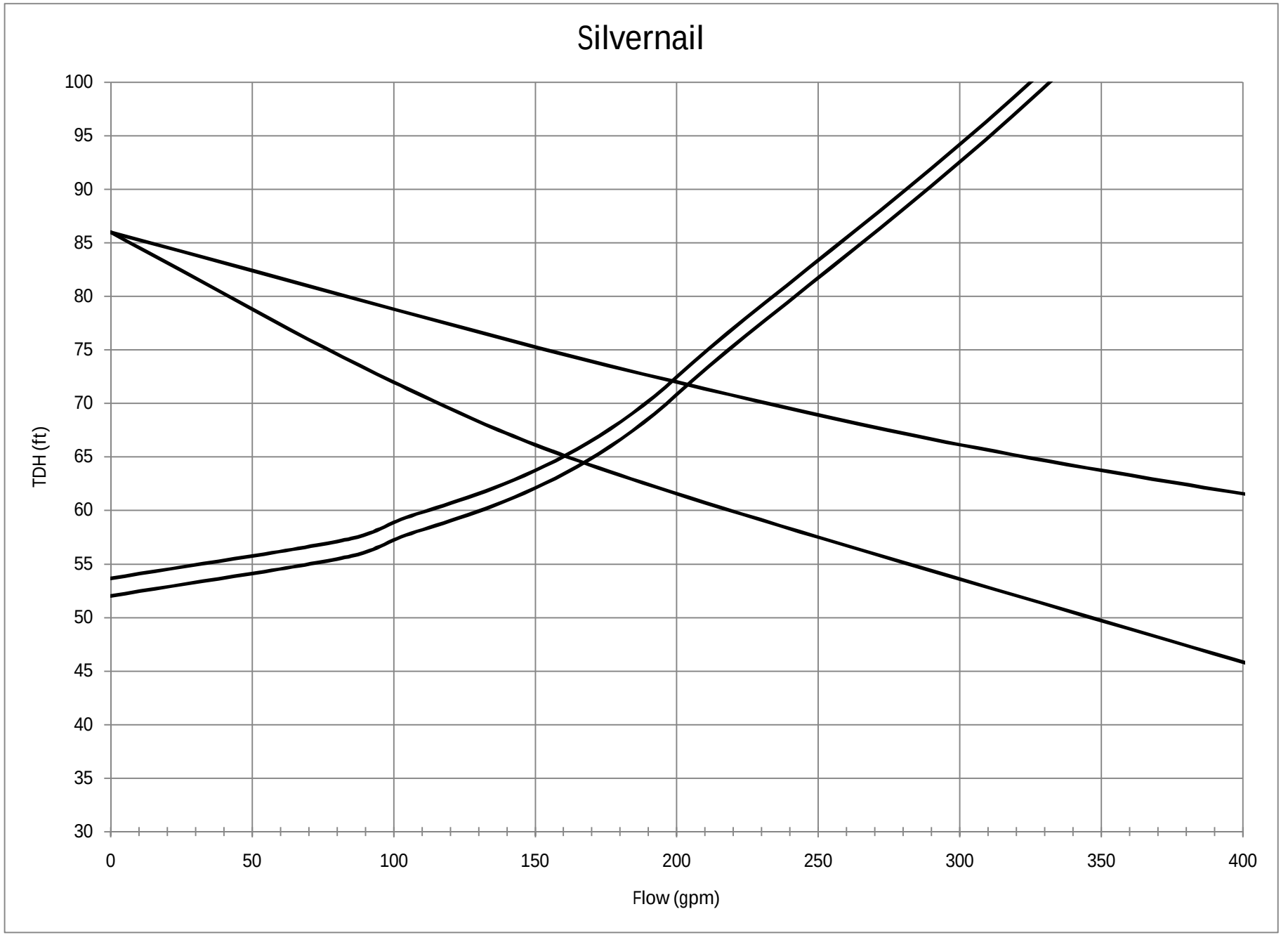

Dana / River Hills
TDH (ft)
100
95
90
85
80
75
70
65
60
55
50
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
160
170
180
190
200
Flow (gpm)

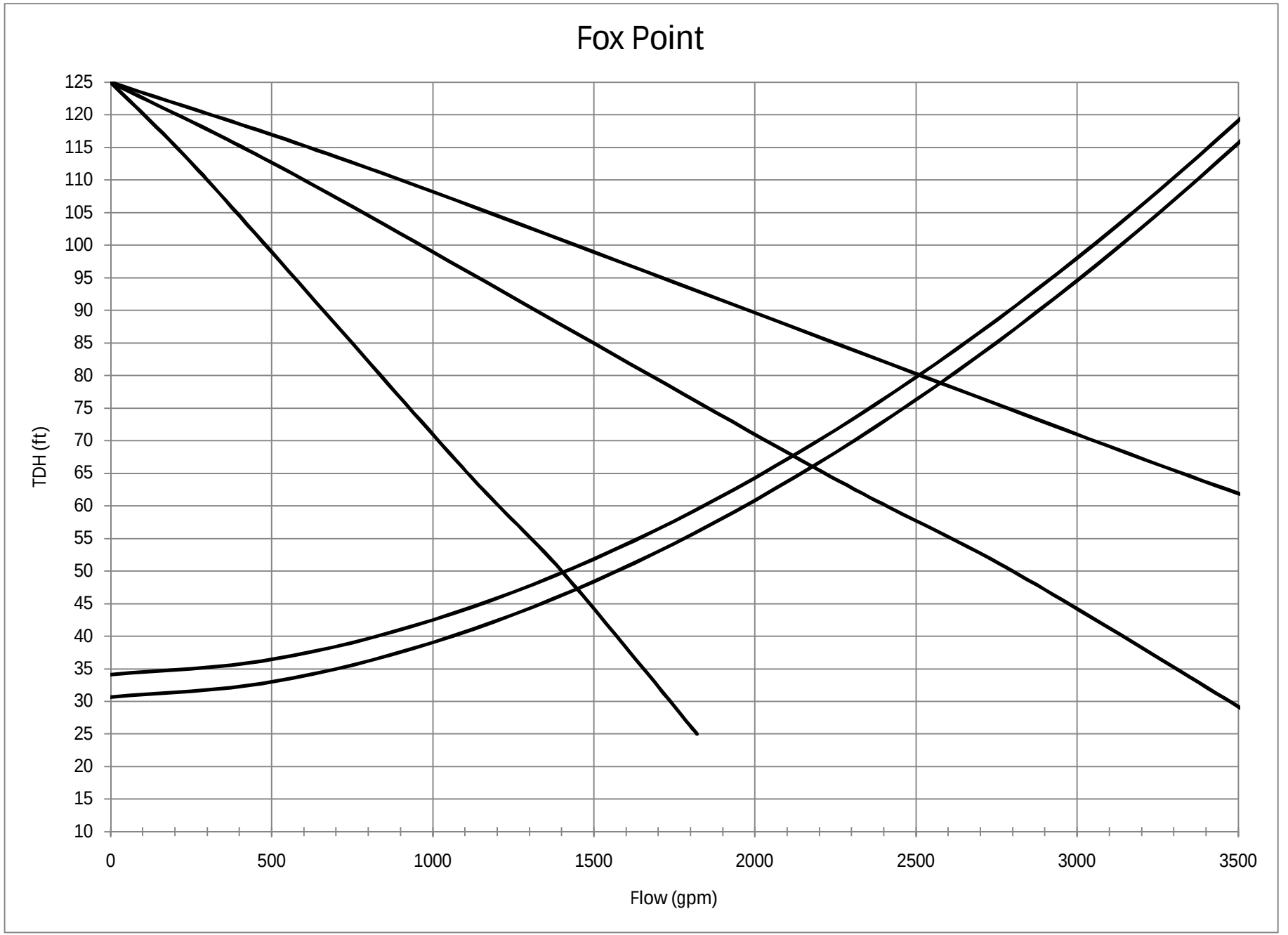

Corporate Center
100
90
80
70
60
50
40
30
20
10
TDH (ft)
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
Flow (gpm)

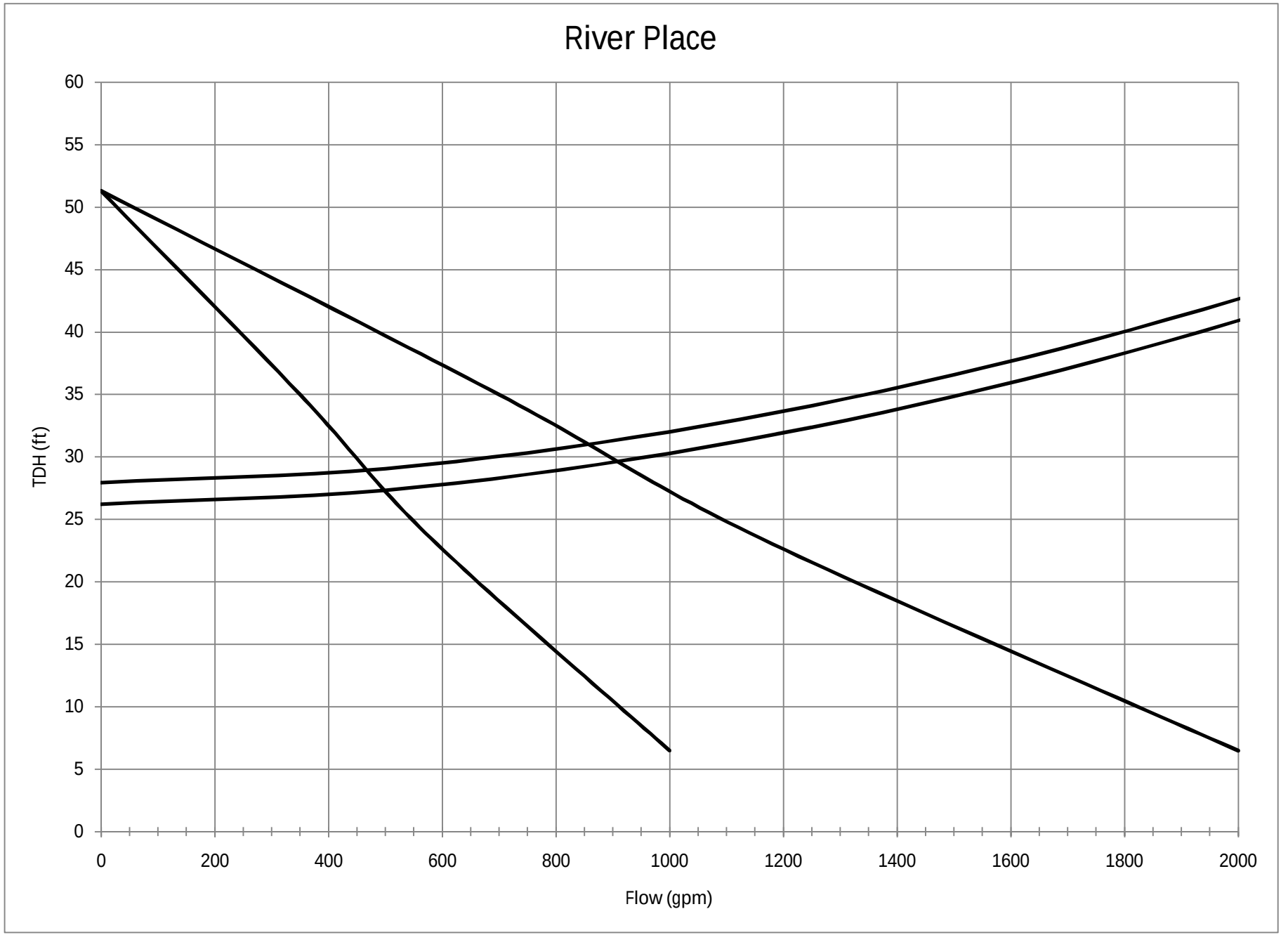

West Bluemound
TDH (ft)
120
115
110
105
100
95
90
85
80
75
70
65
60
0
50
100
150
200
250
300
350
400
450
500
550
600
650
700
750
800
Flow (gpm)

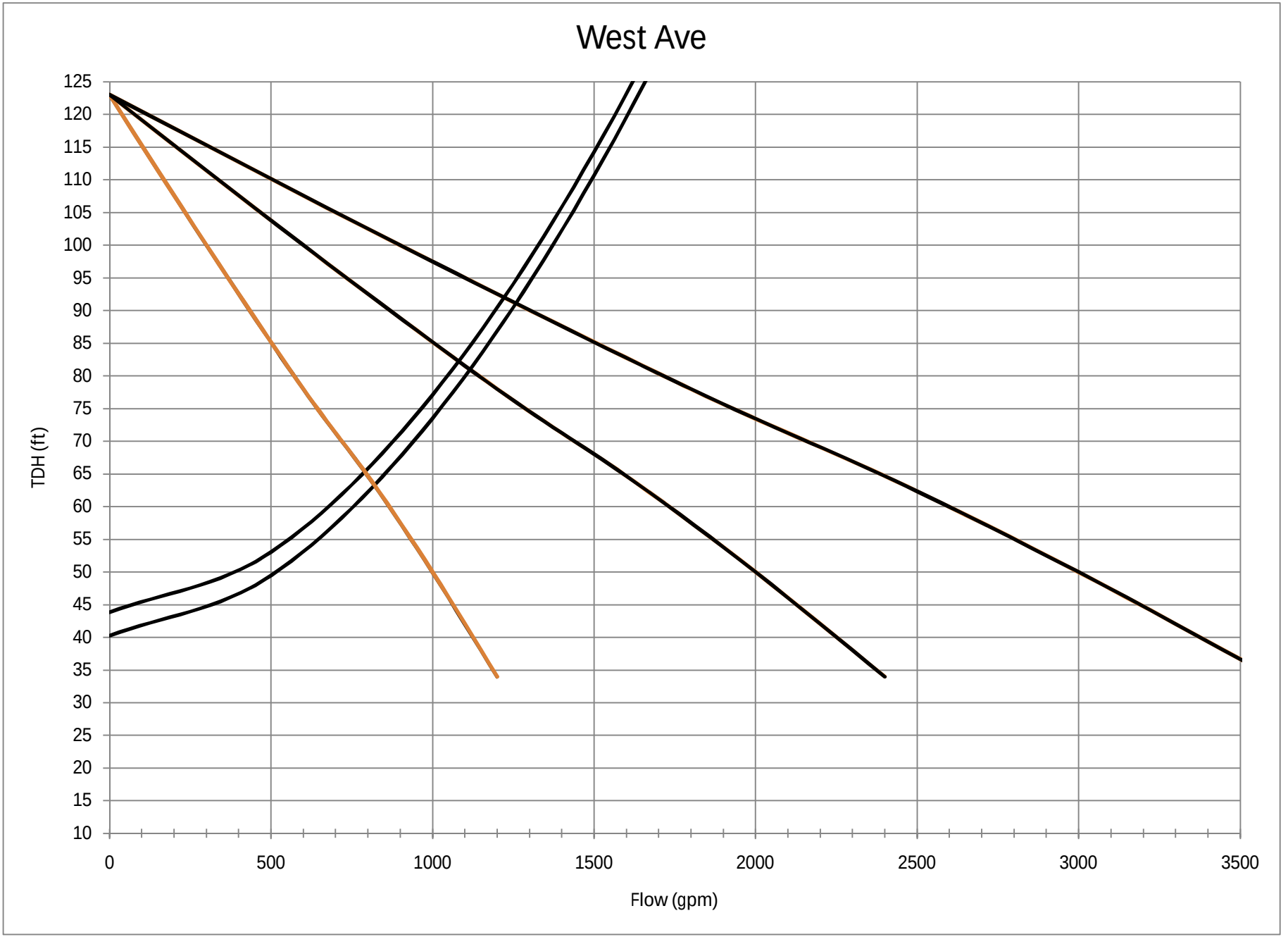

Bluemound
70
65
60
55
50
45
40
35
30
25
20
15
10
TDH (ft)
0
50
100
150
200
250
300
350
400
Flow (gpm)

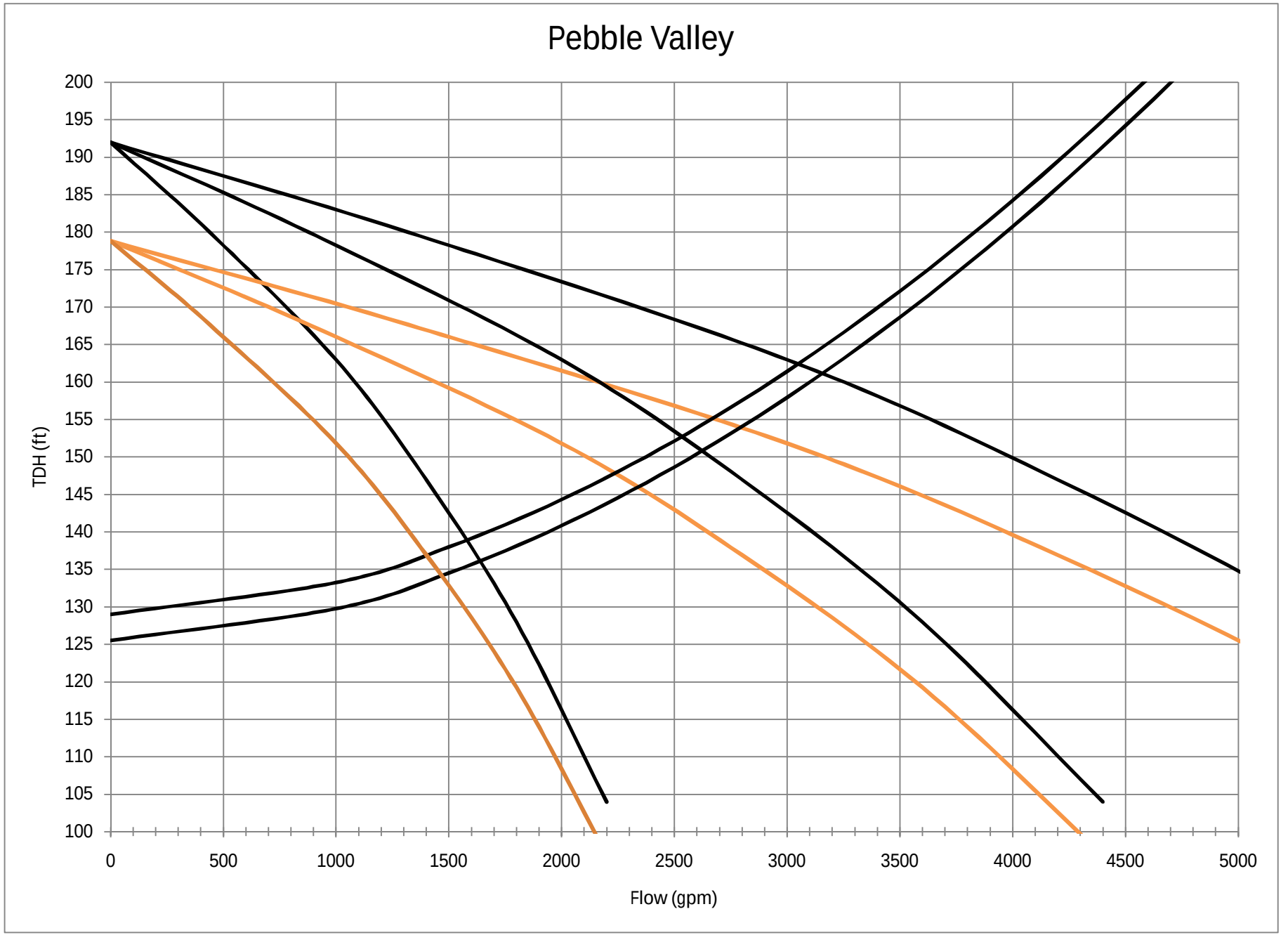

Badger
100
95
90
85
80
75
70
65
60
55
50
45
40
35
30
TDH (ft)
0
50
100
150
200
250
300
350
400
450
500
550
600
650
700
750
800
850
900
950
1000
Flow (gpm)

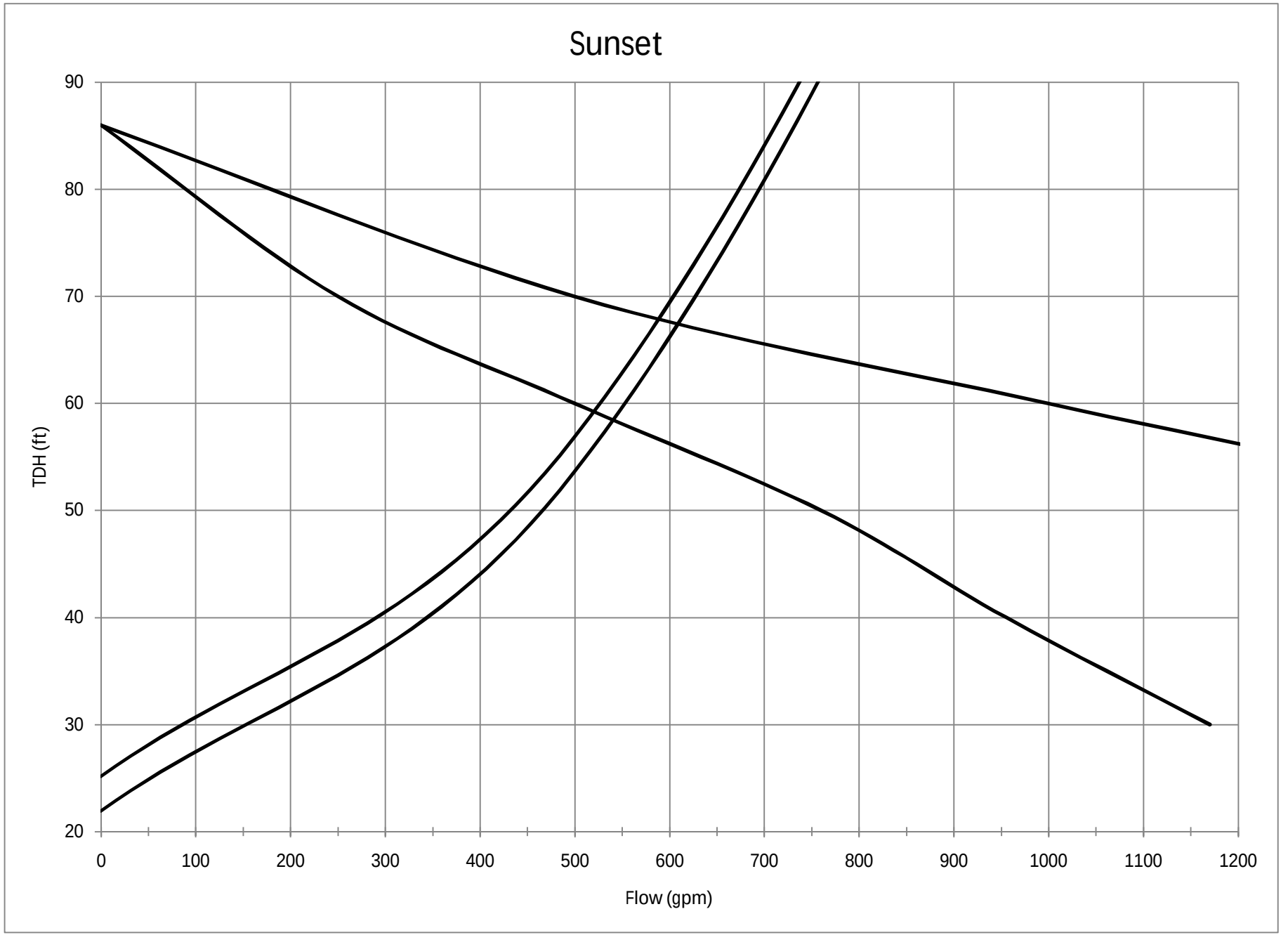

Silvernail
100
95
90
85
80
75
70
65
60
55
50
45
40
35
30
TDH (ft)
0
50
100
150
200
250
300
350
400
Flow (gpm)

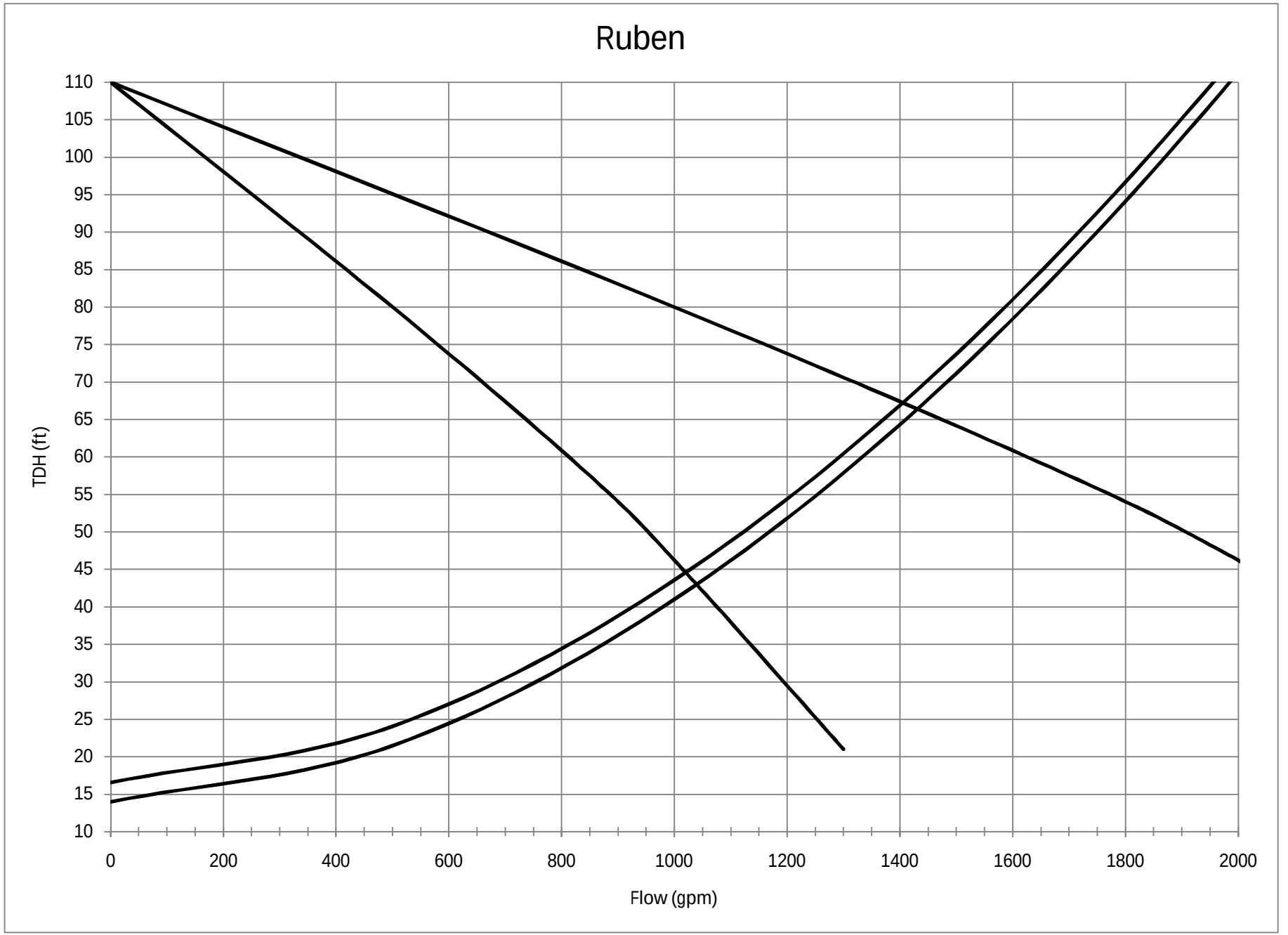

Fox Point
TDH (ft)
125
120
115
110
105
100
95
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
0
500
1000
1500
2000
2500
3000
3500
Flow (gpm)

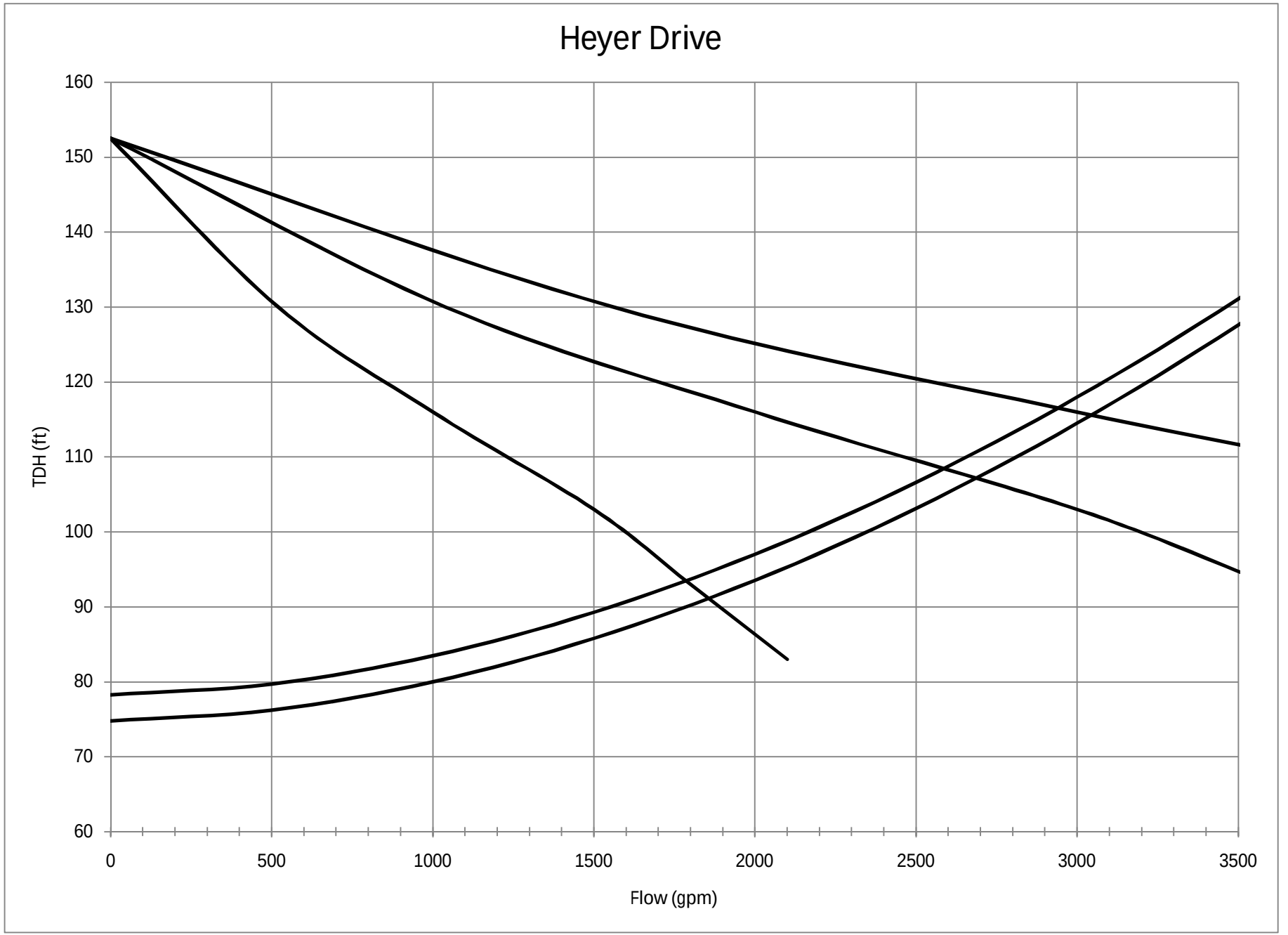

River Place
60
55
50
45
40
35
30
25
20
15
10
5
0
TDH (ft)
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Flow (gpm)

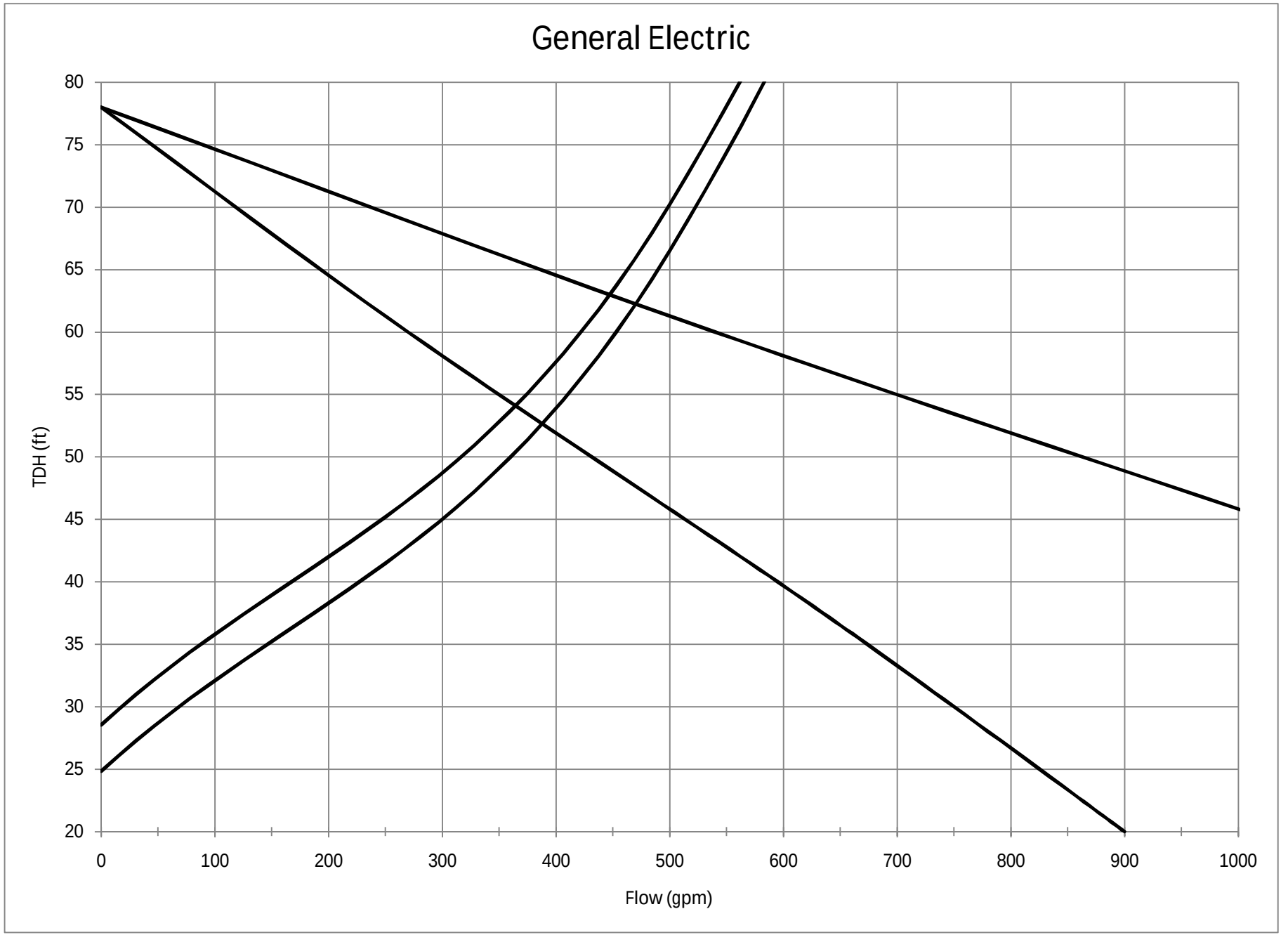

West Ave
TDH (ft)
125
120
115
110
105
100
95
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
0
500
1000
1500
2000
2500
3000
3500
Flow (gpm)

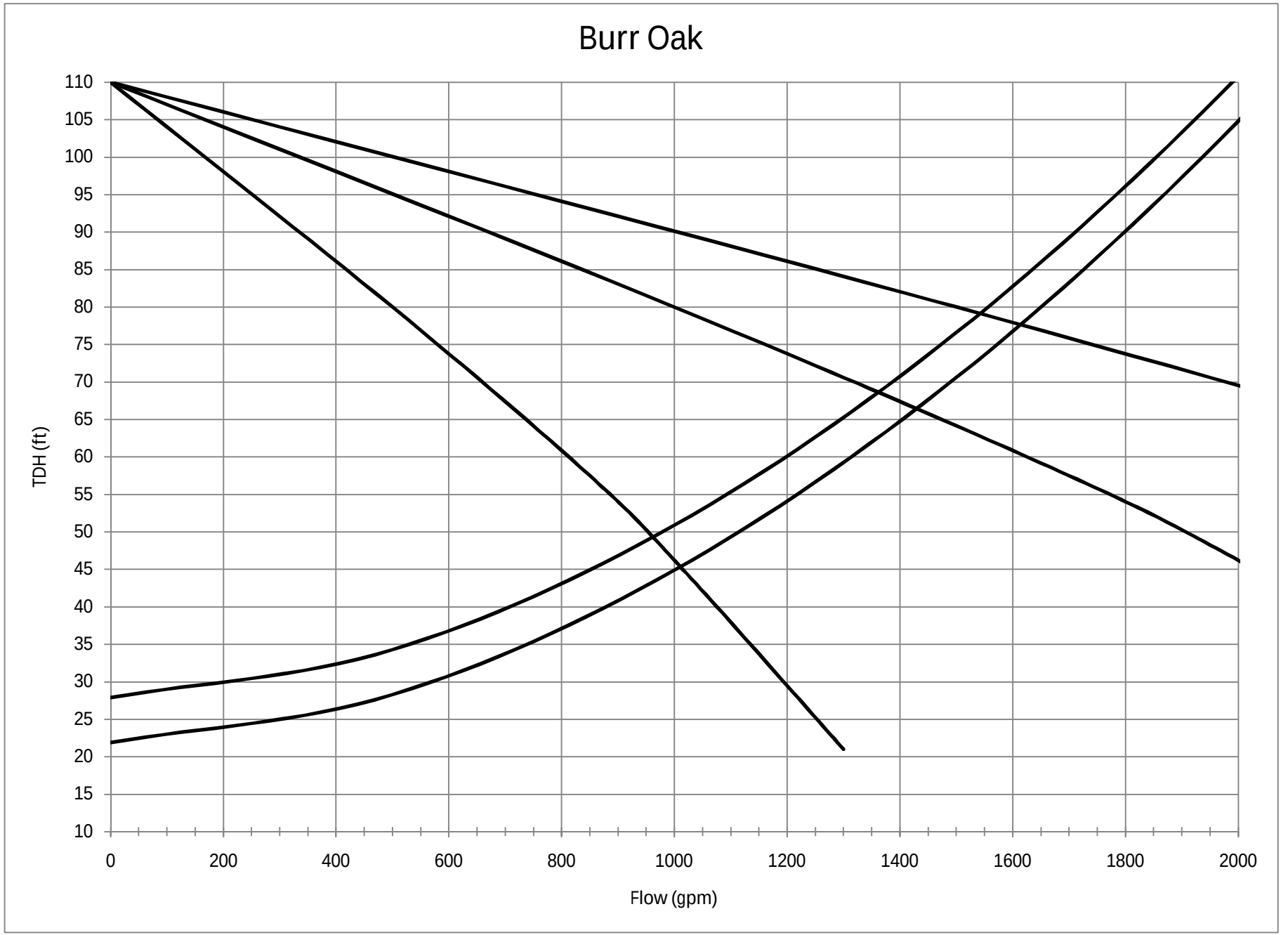

Pebble Valley
TDH (ft)
200
195
190
185
180
175
170
165
160
155
150
145
140
135
130
125
120
115
110
105
100
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
Flow (gpm)

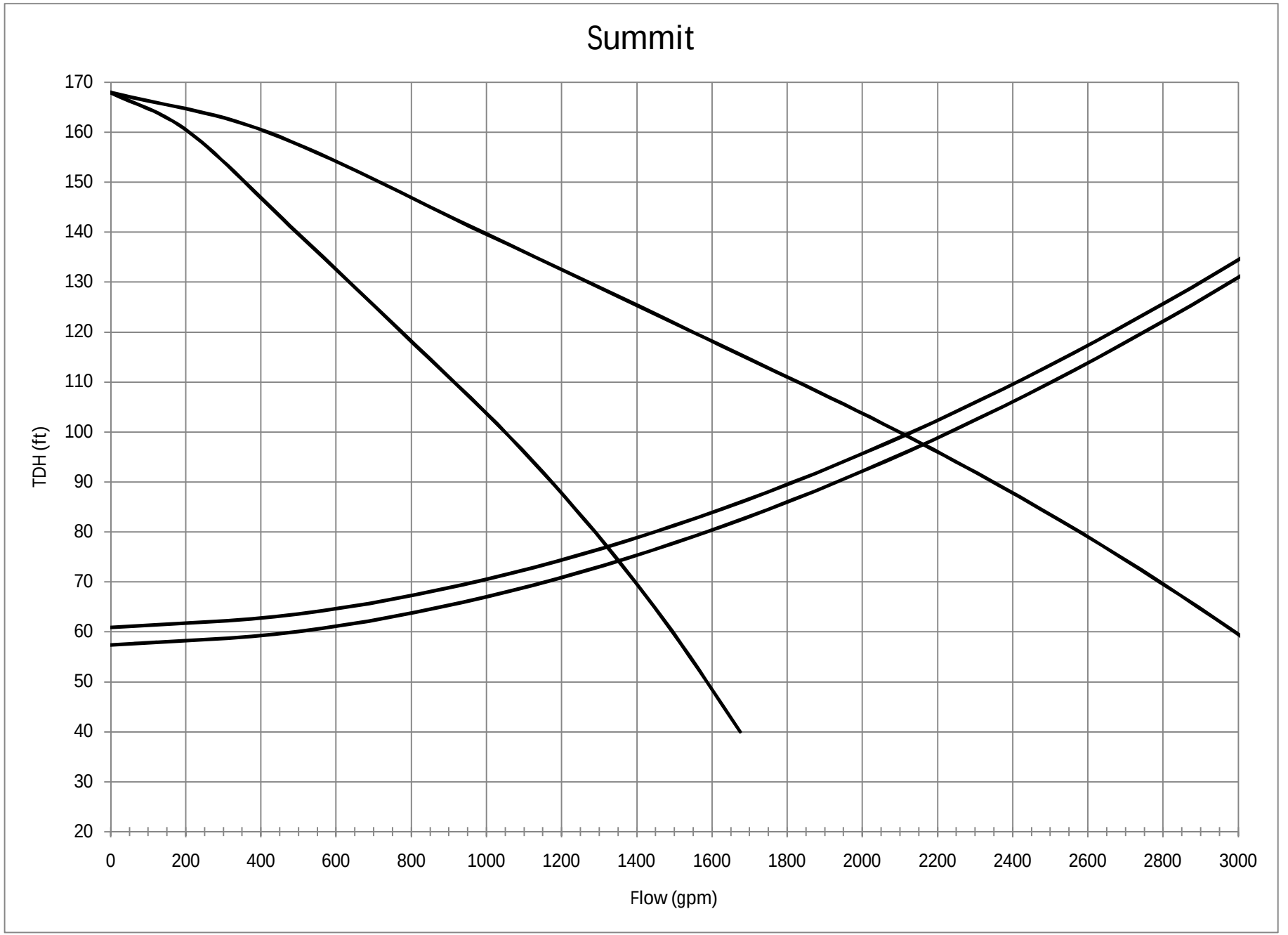

Sunset
90
80
70
60
50
40
30
20
TDH (ft)
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
Flow (gpm)

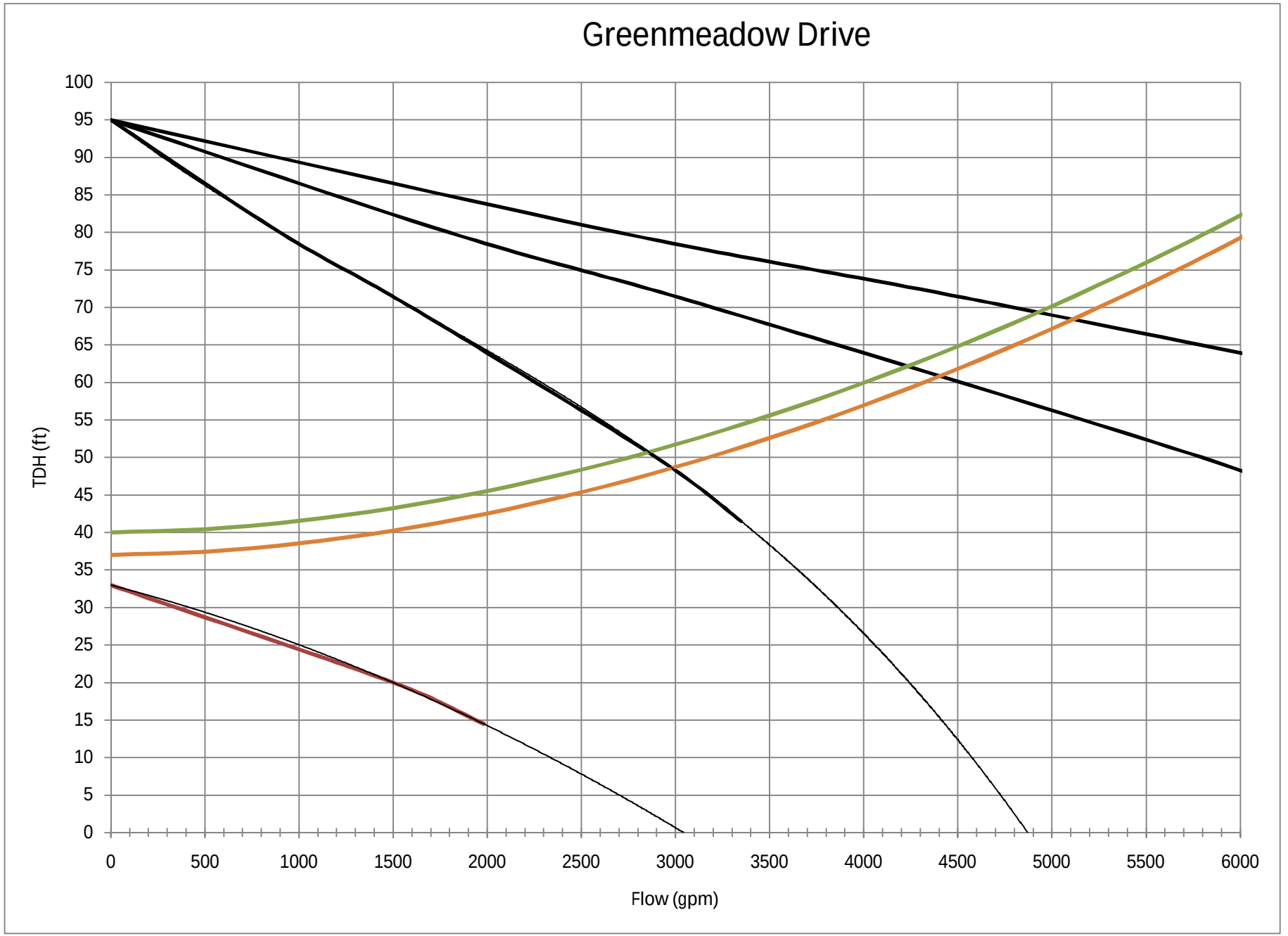

Ruben
TDH (ft)
110
105
100
95
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Flow (gpm)

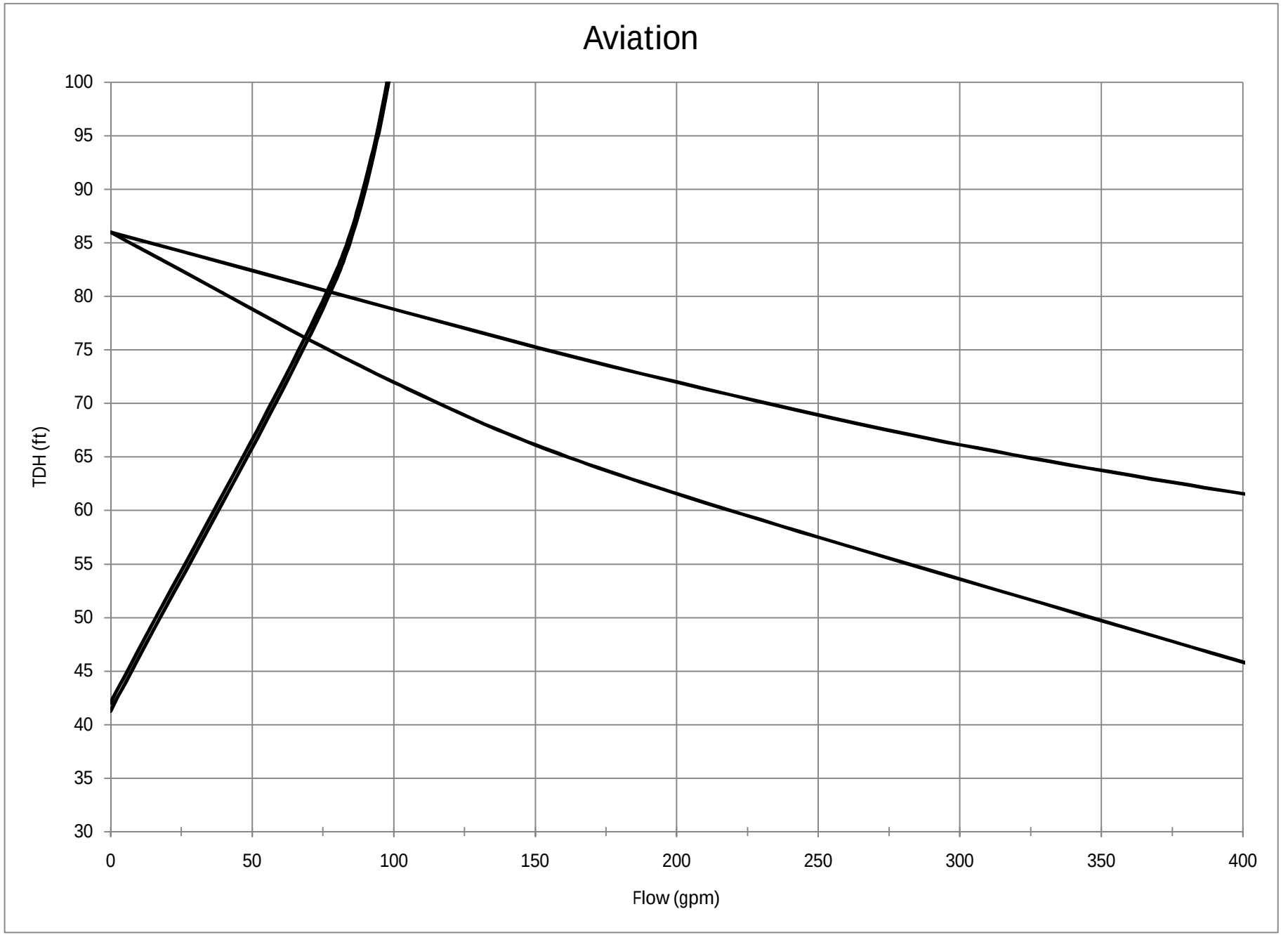

Heyer Drive
160
150
140
130
120
110
100
90
80
70
60
TDH (ft)
0
500
1000
1500
2000
2500
3000
3500
Flow (gpm)


General Electric
80
75
70
65
60
55
50
45
40
35
30
25
20
TDH (ft)
0
100
200
300
400
500
600
700
800
900
1000
Flow (gpm)


Burr Oak
TDH (ft)
110
105
100
95
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Flow (gpm)

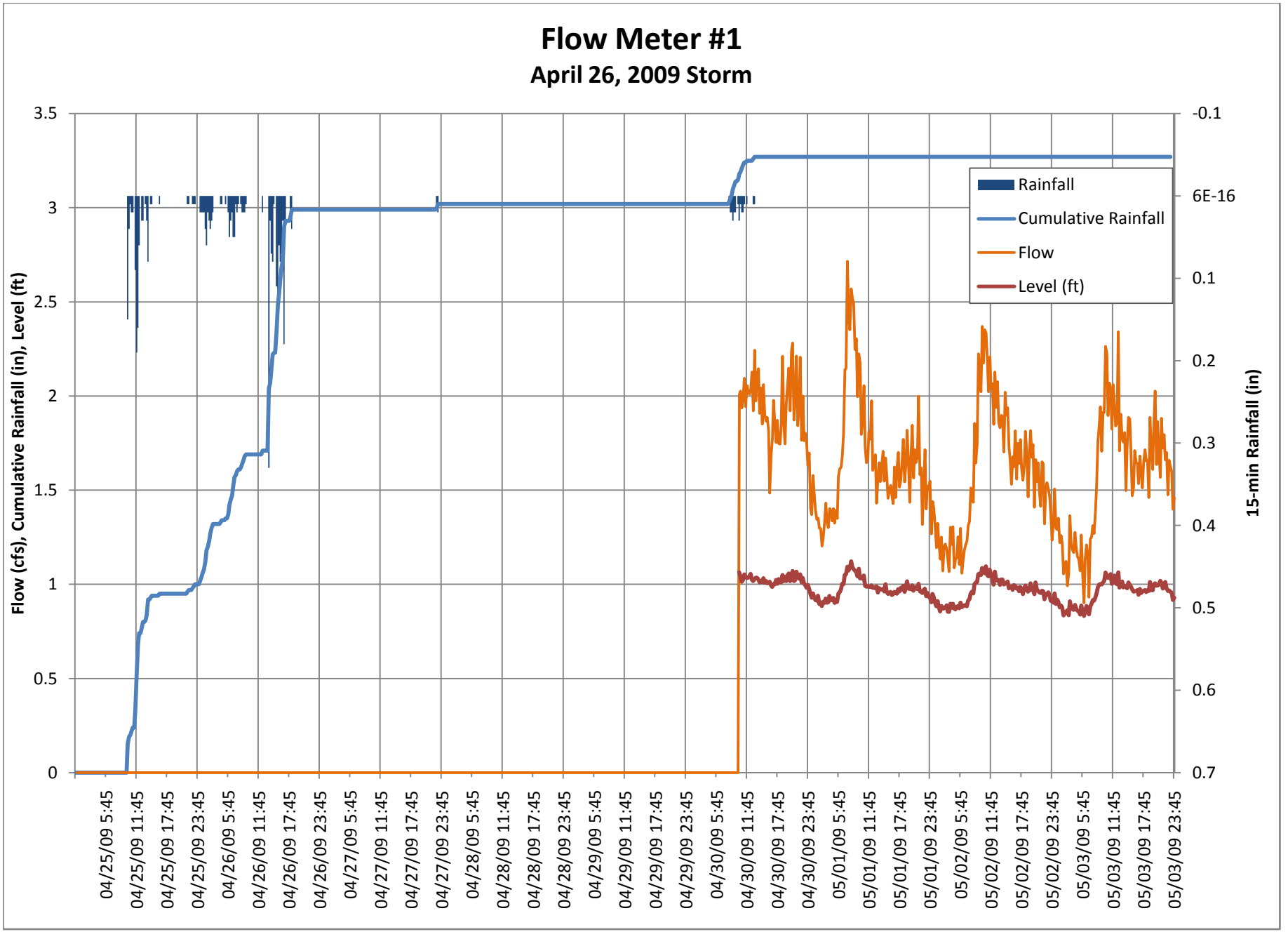

Summit
TDH (ft)
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
0
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
Flow (gpm)

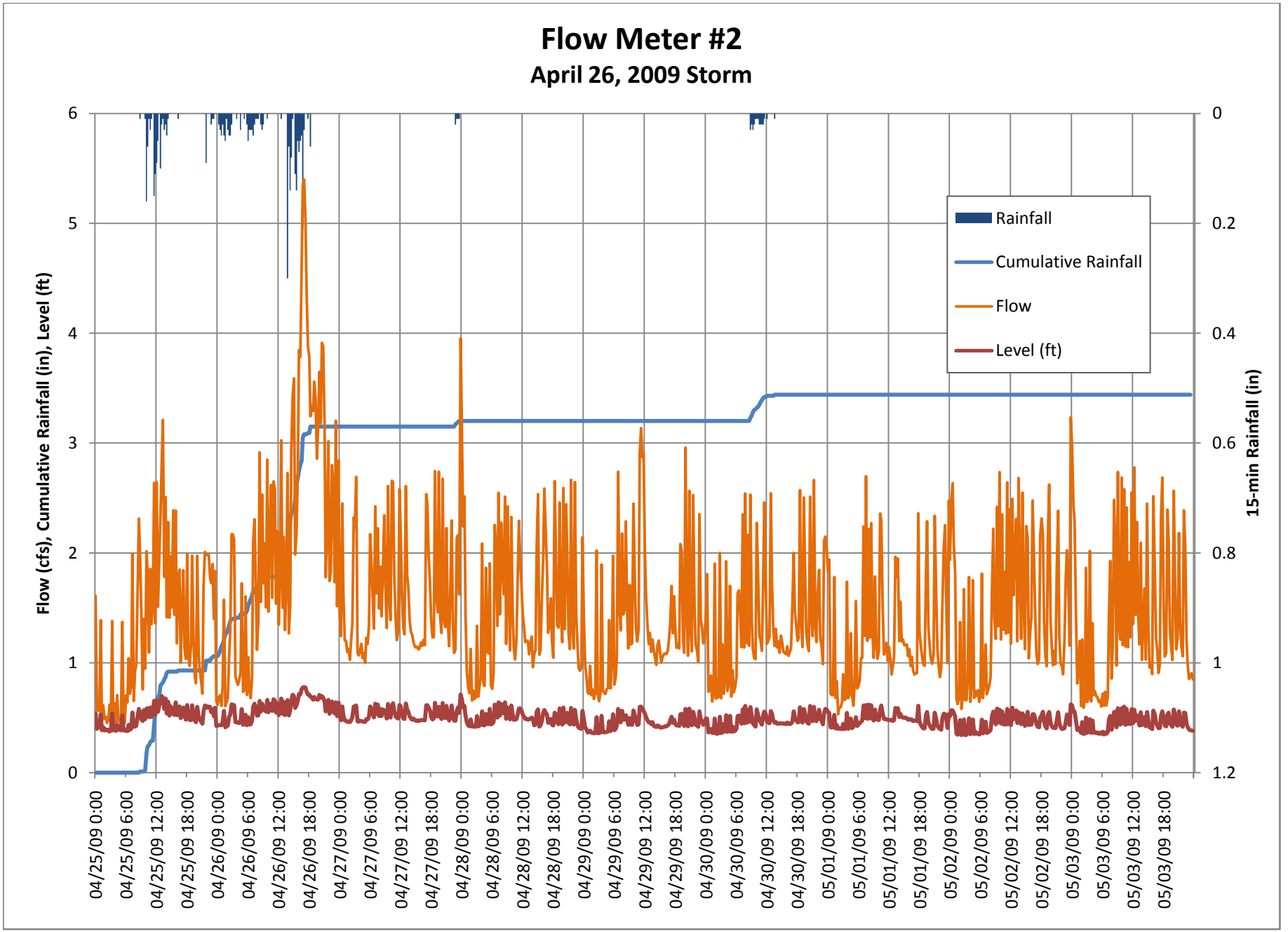

Greenmeadow Drive
TDH (ft)
100
95
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
0
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
Flow (gpm)

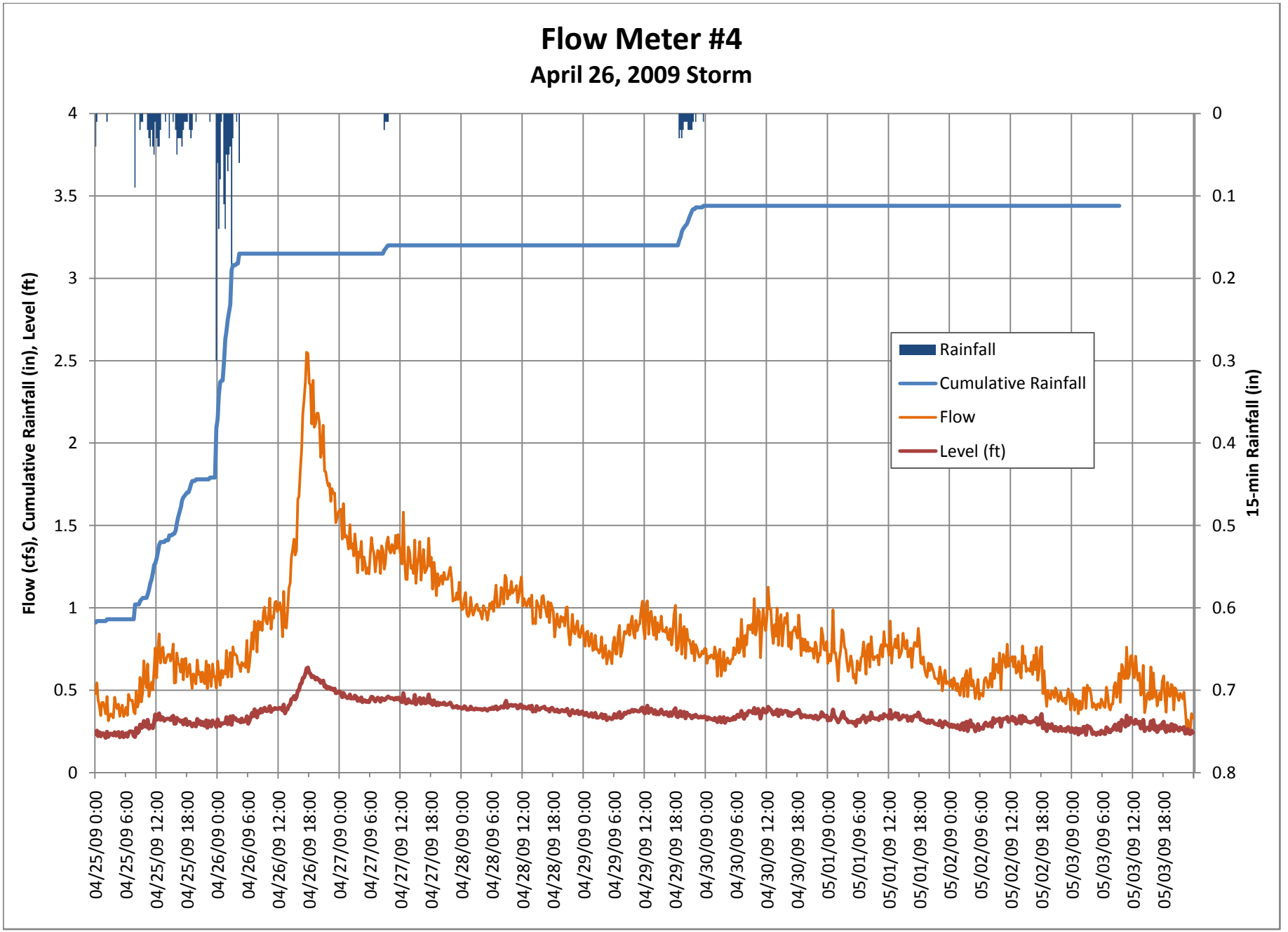

Aviation
100
95
90
85
80
75
70
65
60
55
50
45
40
35
30
TDH (ft)
0
50
100
150
200
250
300
350
400
Flow (gpm)

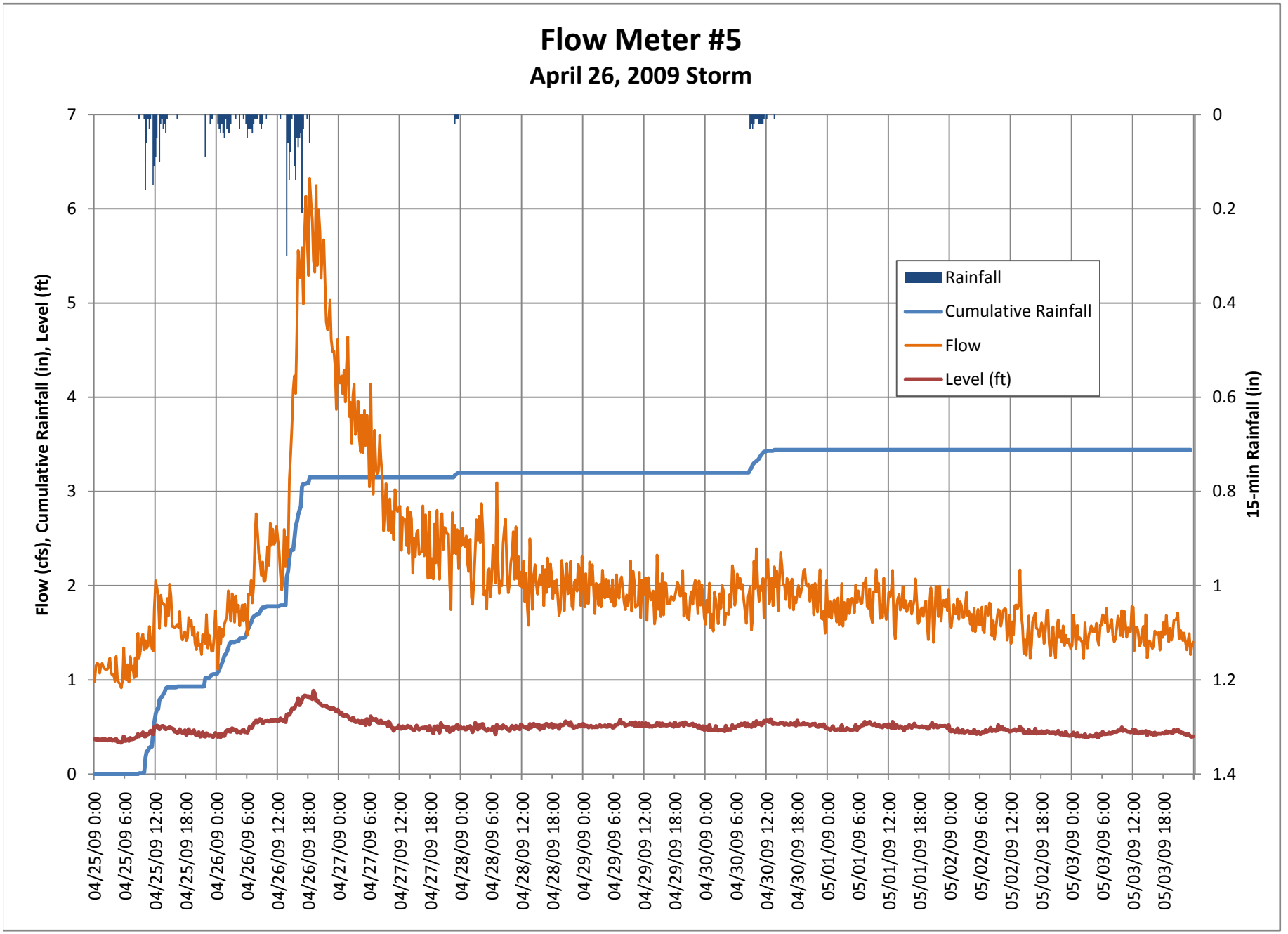
Appendix G

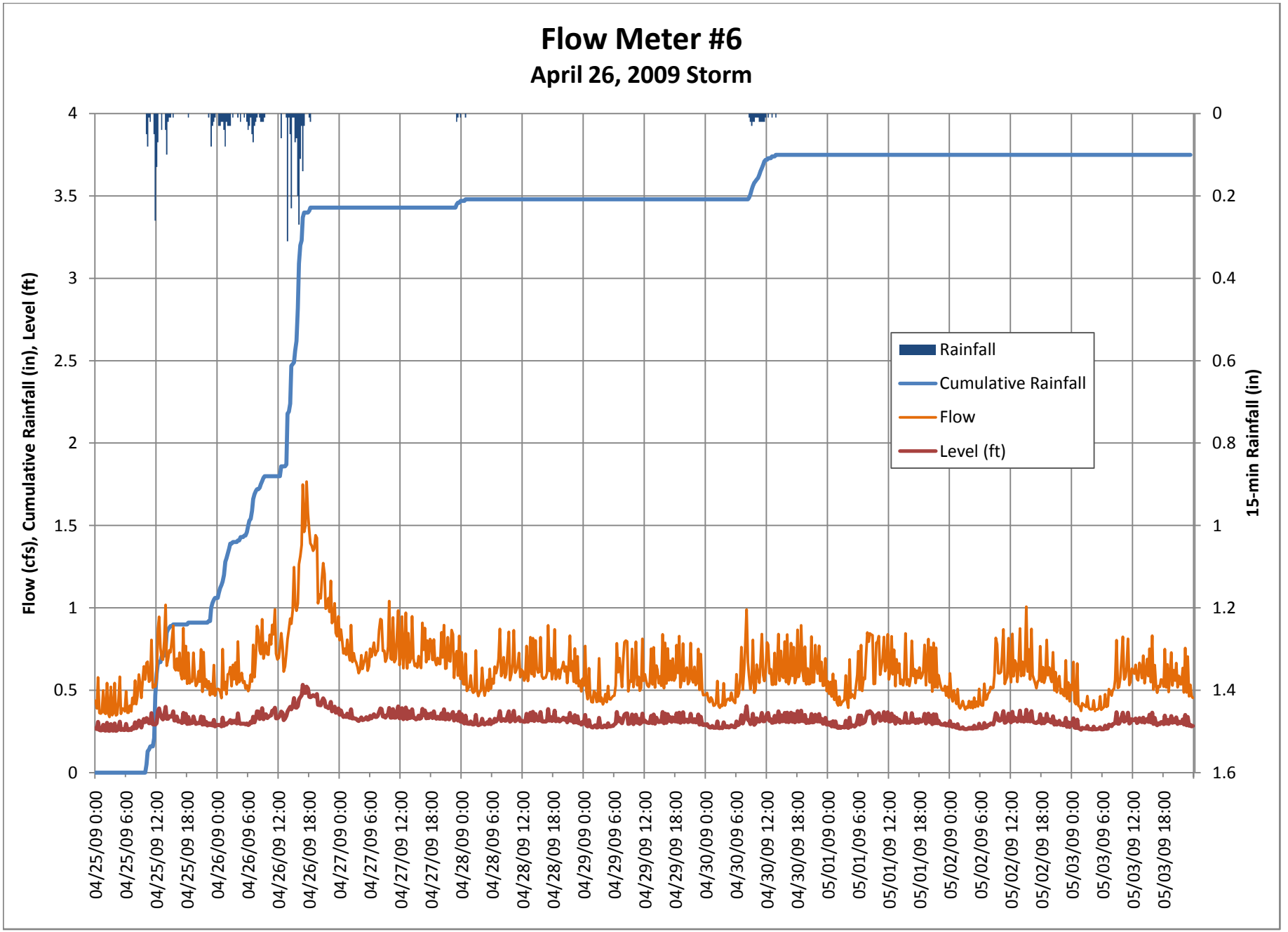
Calibration Event Flow Data

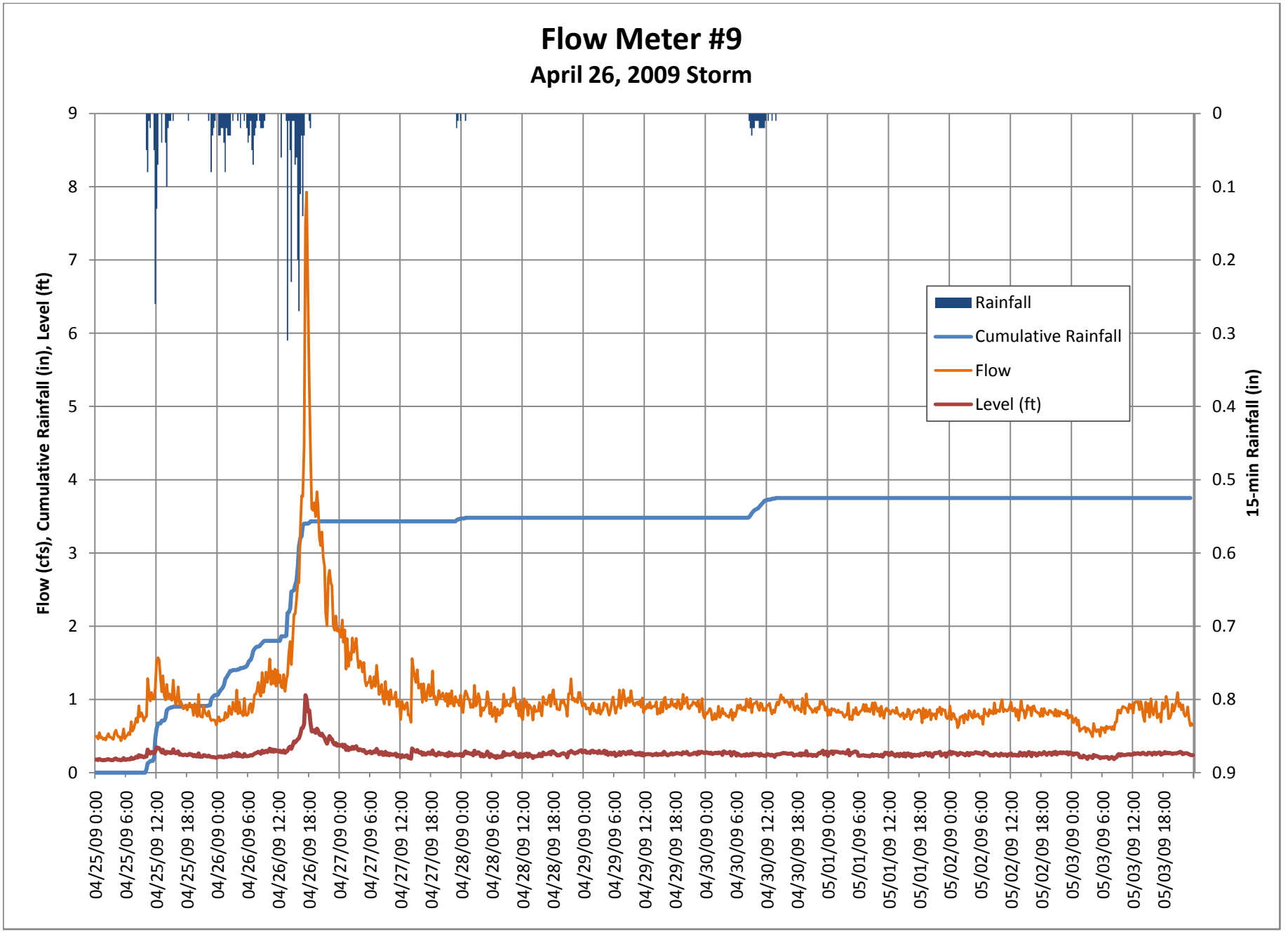

Flow Meter #1
April 26, 2009 Storm
Flow (cfs), Cumulative Rainfall (in), Level (ft)
15-min Rainfall (in)
Rainfall
Cumulative Rainfall
Flow
Level (ft)
3.5
3
2.5
2
1.5
1
0.5
0
-0.1
6E-16
0.1
0.2
0.3
0.4
0.5
0.6
0.7
04/25/09 5:45
04/25/09 11:45
04/25/09 17:45
04/25/09 23:45
04/26/09 5:45
04/26/09 11:45
04/26/09 17:45
04/26/09 23:45
04/27/09 5:45
04/27/09 11:45
04/27/09 17:45
04/27/09 23:45
04/28/09 5:45
04/28/09 11:45
04/28/09 17:45
04/28/09 23:45
04/29/09 5:45
04/29/09 11:45
04/29/09 17:45
04/29/09 23:45
04/30/09 5:45
04/30/09 11:45
04/30/09 17:45
04/30/09 23:45
05/01/09 5:45
05/01/09 11:45
05/01/09 17:45
05/01/09 23:45
05/02/09 5:45
05/02/09 11:45
05/02/09 17:45
05/02/09 23:45
05/03/09 5:45
05/03/09 11:45
05/03/09 17:45
05/03/09 23:45

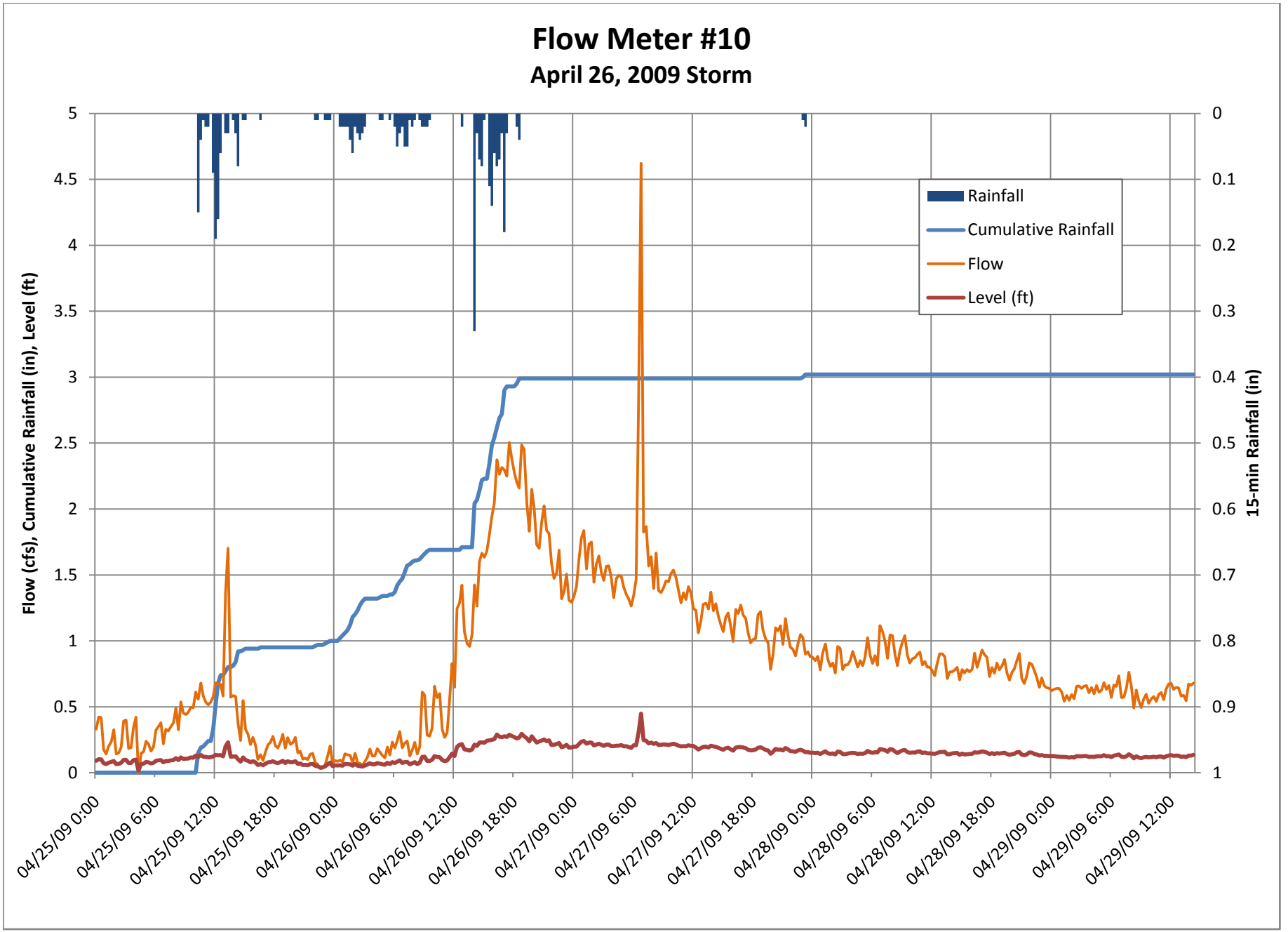

Flow Meter #2
April 26, 2009 Storm
Flow (cfs), Cumulative Rainfall (in), Level (ft)
15-min Rainfall (in)
Rainfall
Cumulative Rainfall
Flow
Level (ft)
0
1
2
3
4
5
6
0
0.2
0.4
0.6
0.8
1
1.2
04/25/09 0:00
04/25/09 6:00
04/25/09 12:00
04/25/09 18:00
04/26/09 0:00
04/26/09 6:00
04/26/09 12:00
04/26/09 18:00
04/27/09 0:00
04/27/09 6:00
04/27/09 12:00
04/27/09 18:00
04/28/09 0:00
04/28/09 6:00
04/28/09 12:00
04/28/09 18:00
04/29/09 0:00
04/29/09 6:00
04/29/09 12:00
04/29/09 18:00
04/30/09 0:00
04/30/09 6:00
04/30/09 12:00
04/30/09 18:00
05/01/09 0:00
05/01/09 6:00
05/01/09 12:00
05/01/09 18:00
05/02/09 0:00
05/02/09 6:00
05/02/09 12:00
05/02/09 18:00
05/03/09 0:00
05/03/09 6:00
05/03/09 12:00
05/03/09 18:00


Flow Meter #4
April 26, 2009 Storm
Flow (cfs), Cumulative Rainfall (in), Level (ft)
15-min Rainfall (in)
Rainfall
Cumulative Rainfall
Flow
Level (ft)
0
0.5
1
1.5
2
2.5
3
3.5
4
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
04/25/09 0:00
04/25/09 6:00
04/25/09 12:00
04/25/09 18:00
04/26/09 0:00
04/26/09 6:00
04/26/09 12:00
04/26/09 18:00
04/27/09 0:00
04/27/09 6:00
04/27/09 12:00
04/27/09 18:00
04/28/09 0:00
04/28/09 6:00
04/28/09 12:00
04/28/09 18:00
04/29/09 0:00
04/29/09 6:00
04/29/09 12:00
04/29/09 18:00
04/30/09 0:00
04/30/09 6:00
04/30/09 12:00
04/30/09 18:00
05/01/09 0:00
05/01/09 6:00
05/01/09 12:00
05/01/09 18:00
05/02/09 0:00
05/02/09 6:00
05/02/09 12:00
05/02/09 18:00
05/03/09 0:00
05/03/09 6:00
05/03/09 12:00
05/03/09 18:00


Flow Meter #5
April 26, 2009 Storm
Flow (cfs), Cumulative Rainfall (in), Level (ft)
15-min Rainfall (in)
Rainfall
Cumulative Rainfall
Flow
Level (ft)
0
1
2
3
4
5
6
7
0
0.2
0.4
0.6
0.8
1
1.2
1.4
04/25/09 0:00
04/25/09 6:00
04/25/09 12:00
04/25/09 18:00
04/26/09 0:00
04/26/09 6:00
04/26/09 12:00
04/26/09 18:00
04/27/09 0:00
04/27/09 6:00
04/27/09 12:00
04/27/09 18:00
04/28/09 0:00
04/28/09 6:00
04/28/09 12:00
04/28/09 18:00
04/29/09 0:00
04/29/09 6:00
04/29/09 12:00
04/29/09 18:00
04/30/09 0:00
04/30/09 6:00
04/30/09 12:00
04/30/09 18:00
05/01/09 0:00
05/01/09 6:00
05/01/09 12:00
05/01/09 18:00
05/02/09 0:00
05/02/09 6:00
05/02/09 12:00
05/02/09 18:00
05/03/09 0:00
05/03/09 6:00
05/03/09 12:00
05/03/09 18:00

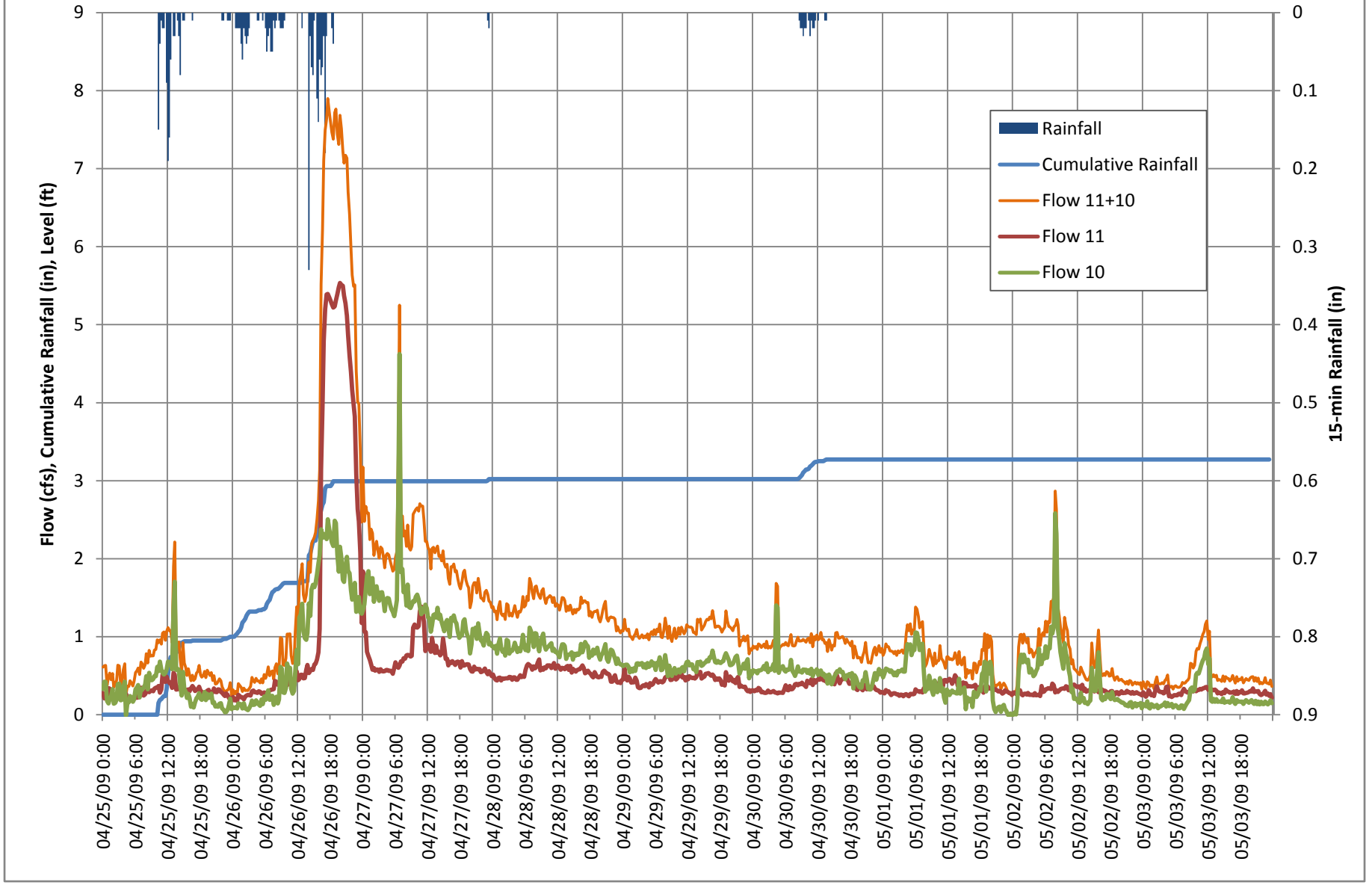

Flow Meter #6
April 26, 2009 Storm
Flow (cfs), Cumulative Rainfall (in), Level (ft)
15-min Rainfall (in)
Rainfall
Cumulative Rainfall
Flow
Level (ft)
4
3.5
3
2.5
2
1.5
1
0.5
0
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
04/25/09 0:00
04/25/09 6:00
04/25/09 12:00
04/25/09 18:00
04/26/09 0:00
04/26/09 6:00
04/26/09 12:00
04/26/09 18:00
04/27/09 0:00
04/27/09 6:00
04/27/09 12:00
04/27/09 18:00
04/28/09 0:00
04/28/09 6:00
04/28/09 12:00
04/28/09 18:00
04/29/09 0:00
04/29/09 6:00
04/29/09 12:00
04/29/09 18:00
04/30/09 0:00
04/30/09 6:00
04/30/09 12:00
04/30/09 18:00
05/01/09 0:00
05/01/09 6:00
05/01/09 12:00
05/01/09 18:00
05/02/09 0:00
05/02/09 6:00
05/02/09 12:00
05/02/09 18:00
05/03/09 0:00
05/03/09 6:00
05/03/09 12:00
05/03/09 18:00

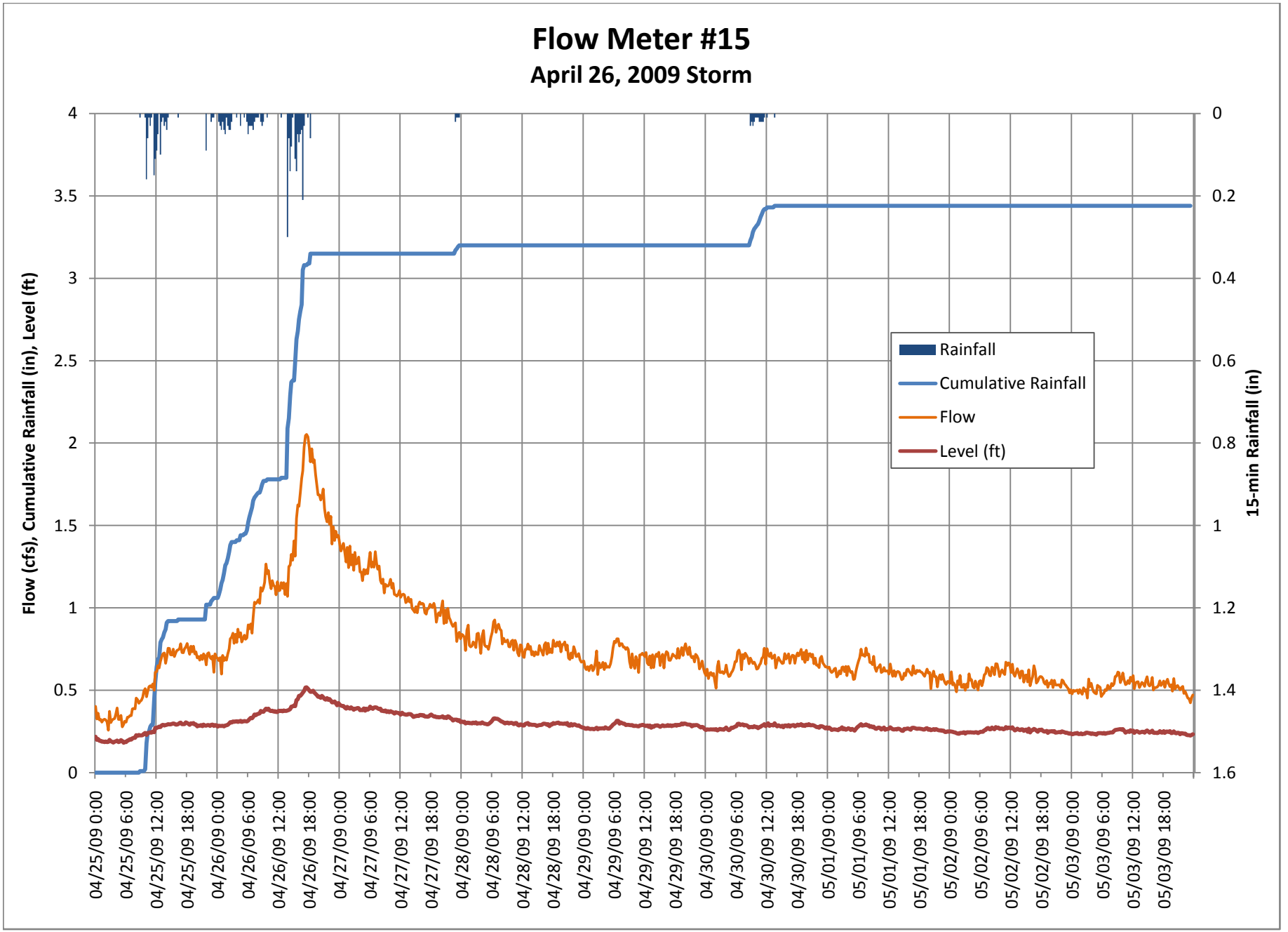

Flow Meter #9
April 26, 2009 Storm
Flow (cfs), Cumulative Rainfall (in), Level (ft)
15-min Rainfall (in)
Rainfall
Cumulative Rainfall
Flow
Level (ft)
0
1
2
3
4
5
6
7
8
9
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
04/25/09 0:00
04/25/09 6:00
04/25/09 12:00
04/25/09 18:00
04/26/09 0:00
04/26/09 6:00
04/26/09 12:00
04/26/09 18:00
04/27/09 0:00
04/27/09 6:00
04/27/09 12:00
04/27/09 18:00
04/28/09 0:00
04/28/09 6:00
04/28/09 12:00
04/28/09 18:00
04/29/09 0:00
04/29/09 6:00
04/29/09 12:00
04/29/09 18:00
04/30/09 0:00
04/30/09 6:00
04/30/09 12:00
04/30/09 18:00
05/01/09 0:00
05/01/09 6:00
05/01/09 12:00
05/01/09 18:00
05/02/09 0:00
05/02/09 6:00
05/02/09 12:00
05/02/09 18:00
05/03/09 0:00
05/03/09 6:00
05/03/09 12:00
05/03/09 18:00

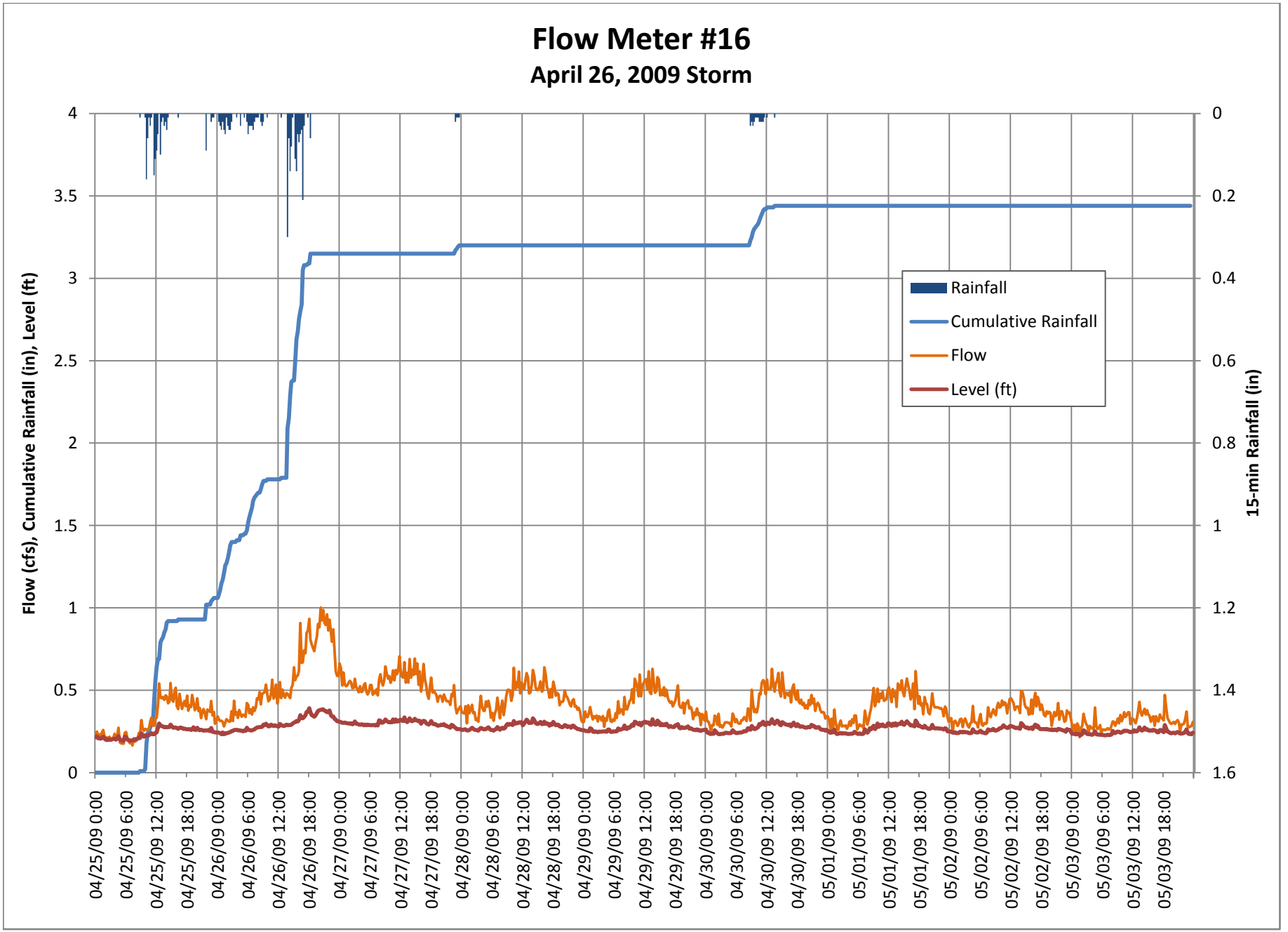

Flow Meter #10
April 26, 2009 Storm
Flow (cfs), Cumulative Rainfall (in), Level (ft)
15-min Rainfall (in)
Rainfall
Cumulative Rainfall
Flow
Level (ft)
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
04/25/09 0:00
04/25/09 6:00
04/25/09 12:00
04/25/09 18:00
04/26/09 0:00
04/26/09 6:00
04/26/09 12:00
04/26/09 18:00
04/27/09 0:00
04/27/09 6:00
04/27/09 12:00
04/27/09 18:00
04/28/09 0:00
04/28/09 6:00
04/28/09 12:00
04/28/09 18:00
04/29/09 0:00
04/29/09 6:00
04/29/09 12:00

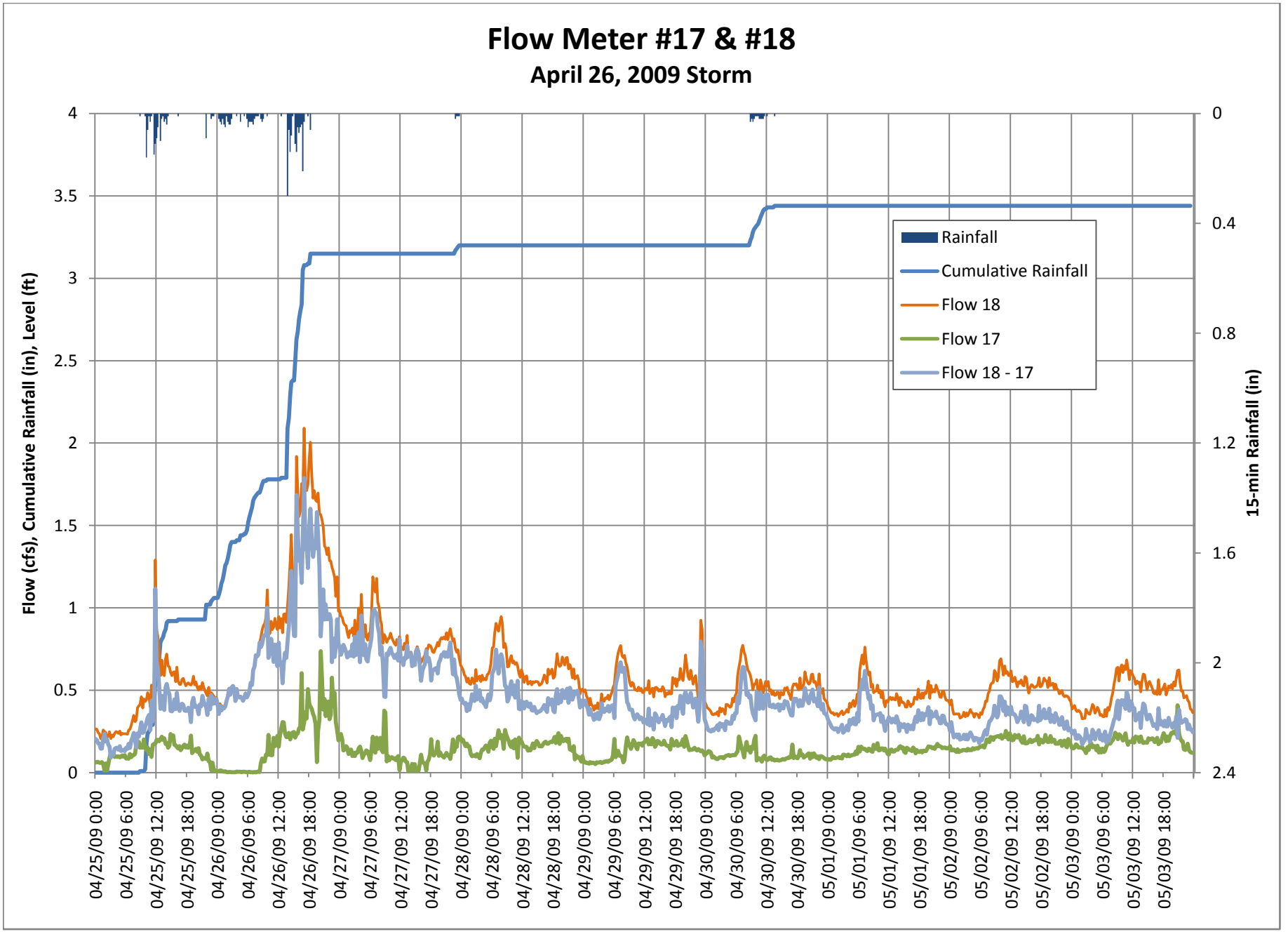
Flow Meter #11+#10

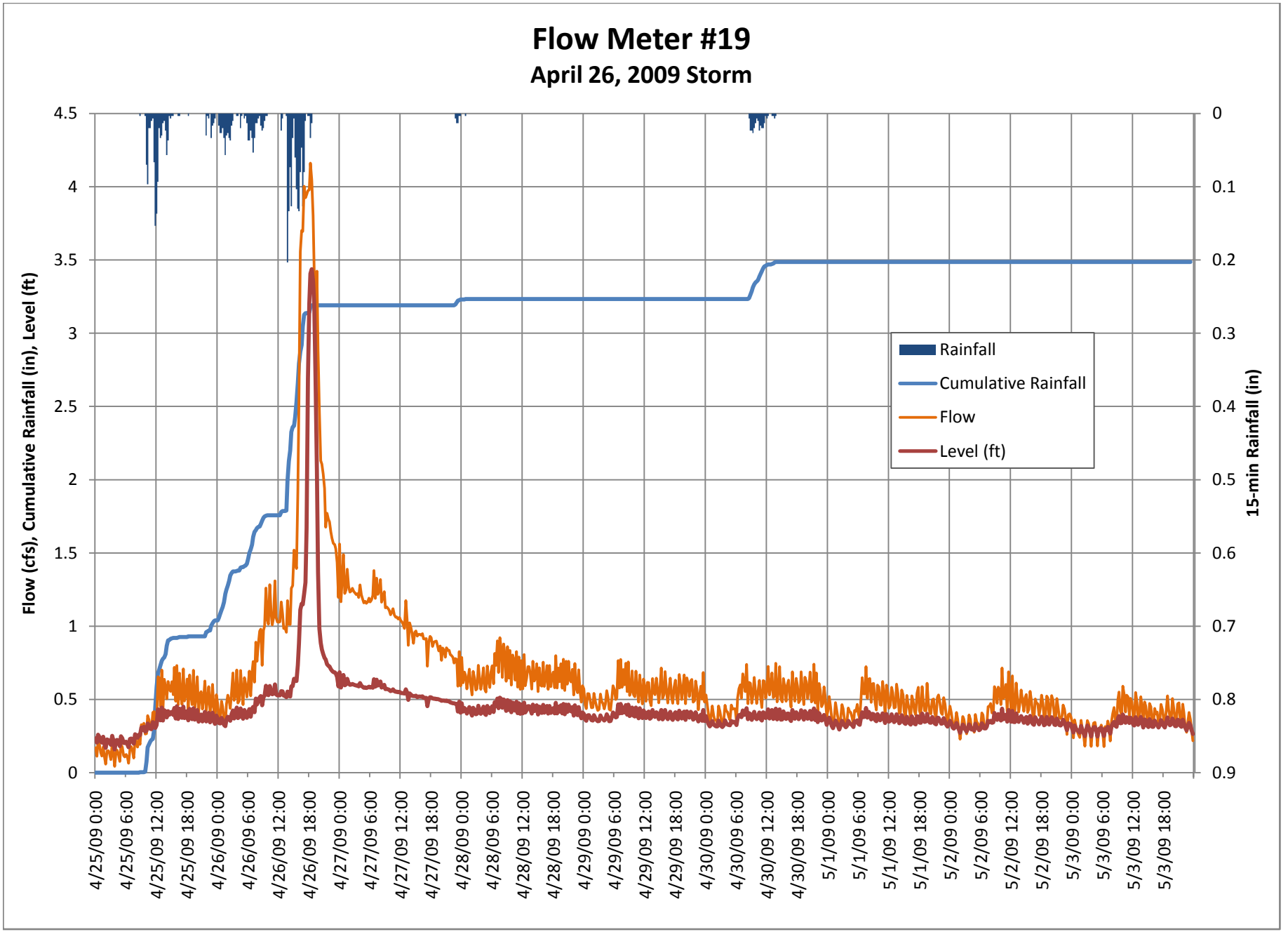
April 26, 2009 Storm

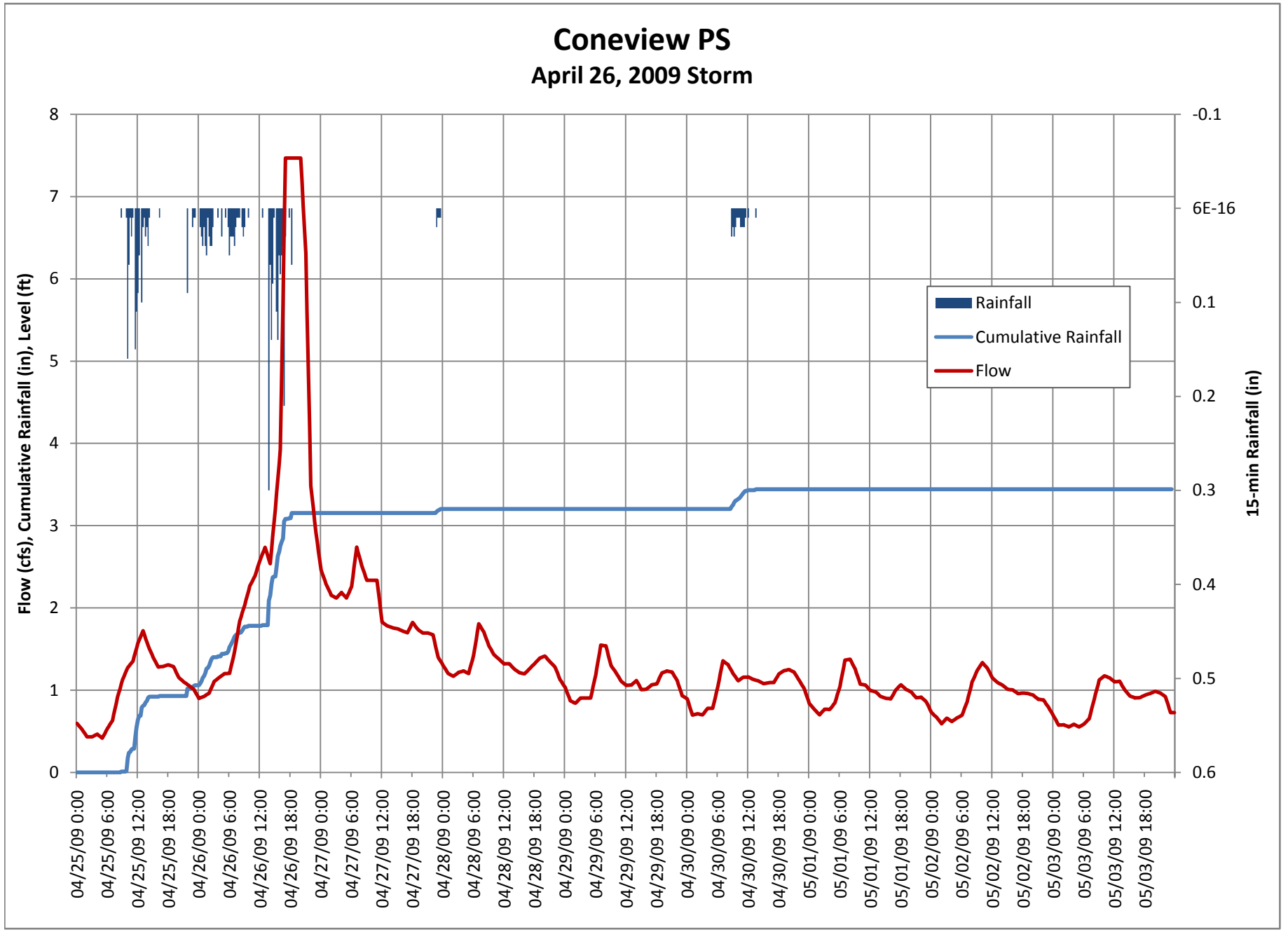


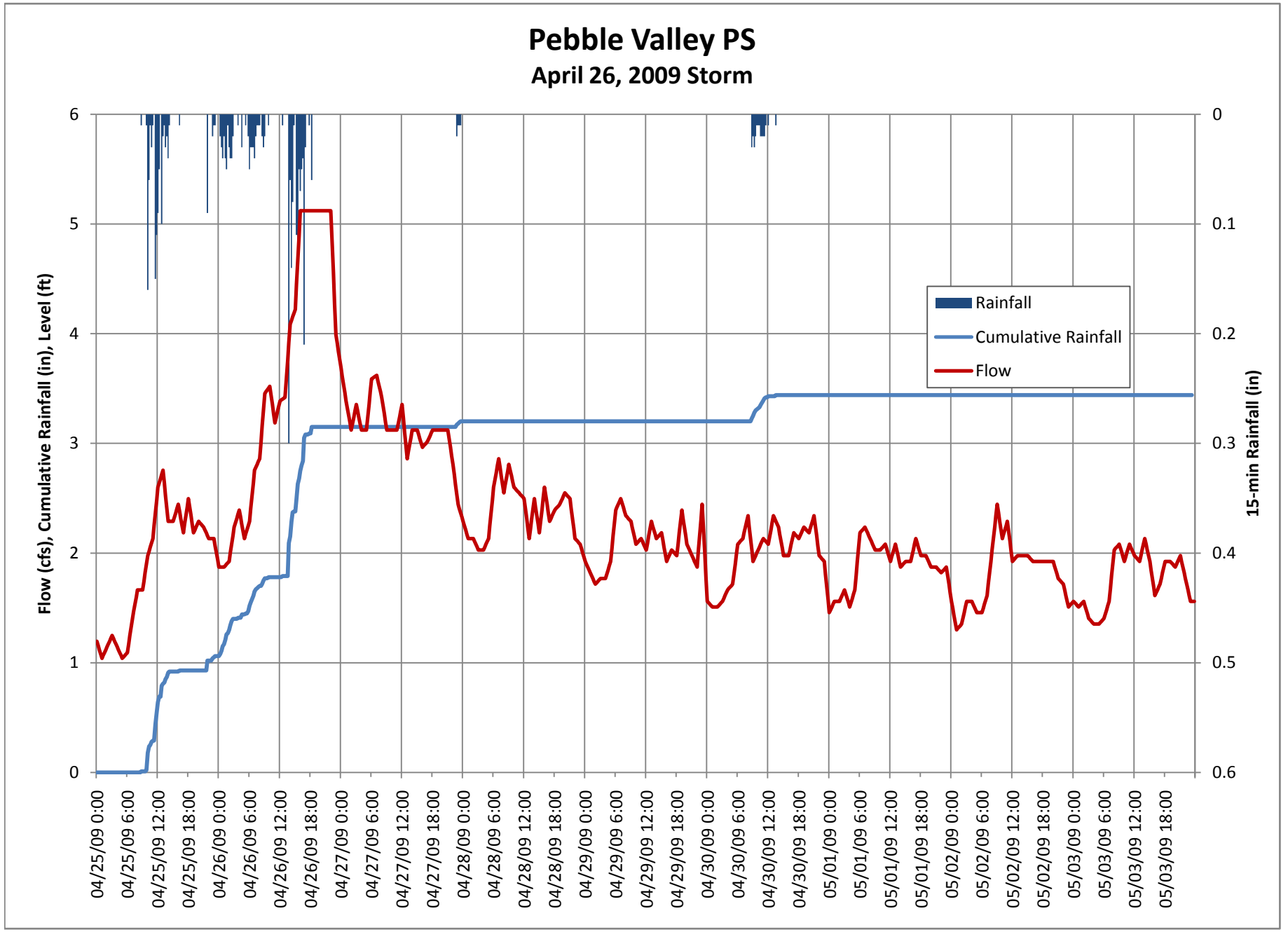

Flow Meter #15
April 26, 2009 Storm
Flow (cfs), Cumulative Rainfall (in), Level (ft)
15-min Rainfall (in)
Rainfall
Cumulative Rainfall
Flow
Level (ft)
0
0.5
1
1.5
2
2.5
3
3.5
4
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
04/25/09 0:00
04/25/09 6:00
04/25/09 12:00
04/25/09 18:00
04/26/09 0:00
04/26/09 6:00
04/26/09 12:00
04/26/09 18:00
04/27/09 0:00
04/27/09 6:00
04/27/09 12:00
04/27/09 18:00
04/28/09 0:00
04/28/09 6:00
04/28/09 12:00
04/28/09 18:00
04/29/09 0:00
04/29/09 6:00
04/29/09 12:00
04/29/09 18:00
04/30/09 0:00
04/30/09 6:00
04/30/09 12:00
04/30/09 18:00
05/01/09 0:00
05/01/09 6:00
05/01/09 12:00
05/01/09 18:00
05/02/09 0:00
05/02/09 6:00
05/02/09 12:00
05/02/09 18:00
05/03/09 0:00
05/03/09 6:00
05/03/09 12:00
05/03/09 18:00

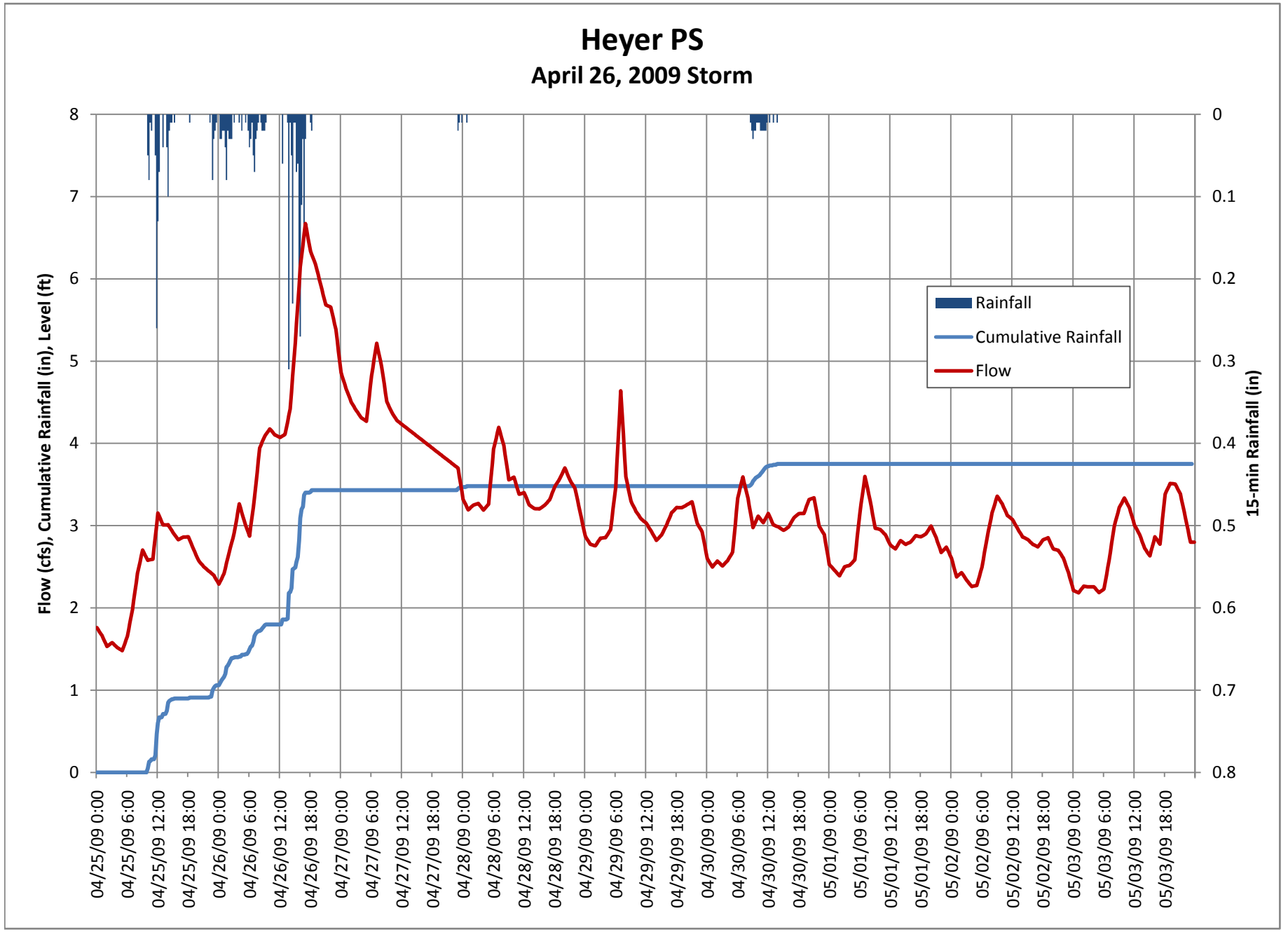

Flow Meter #16
April 26, 2009 Storm
Flow (cfs), Cumulative Rainfall (in), Level (ft)
15-min Rainfall (in)
Rainfall
Cumulative Rainfall
Flow
Level (ft)
4
3.5
3
2.5
2
1.5
1
0.5
0
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
04/25/09 0:00
04/25/09 6:00
04/25/09 12:00
04/25/09 18:00
04/26/09 0:00
04/26/09 6:00
04/26/09 12:00
04/26/09 18:00
04/27/09 0:00
04/27/09 6:00
04/27/09 12:00
04/27/09 18:00
04/28/09 0:00
04/28/09 6:00
04/28/09 12:00
04/28/09 18:00
04/29/09 0:00
04/29/09 6:00
04/29/09 12:00
04/29/09 18:00
04/30/09 0:00
04/30/09 6:00
04/30/09 12:00
04/30/09 18:00
05/01/09 0:00
05/01/09 6:00
05/01/09 12:00
05/01/09 18:00
05/02/09 0:00
05/02/09 6:00
05/02/09 12:00
05/02/09 18:00
05/03/09 0:00
05/03/09 6:00
05/03/09 12:00
05/03/09 18:00

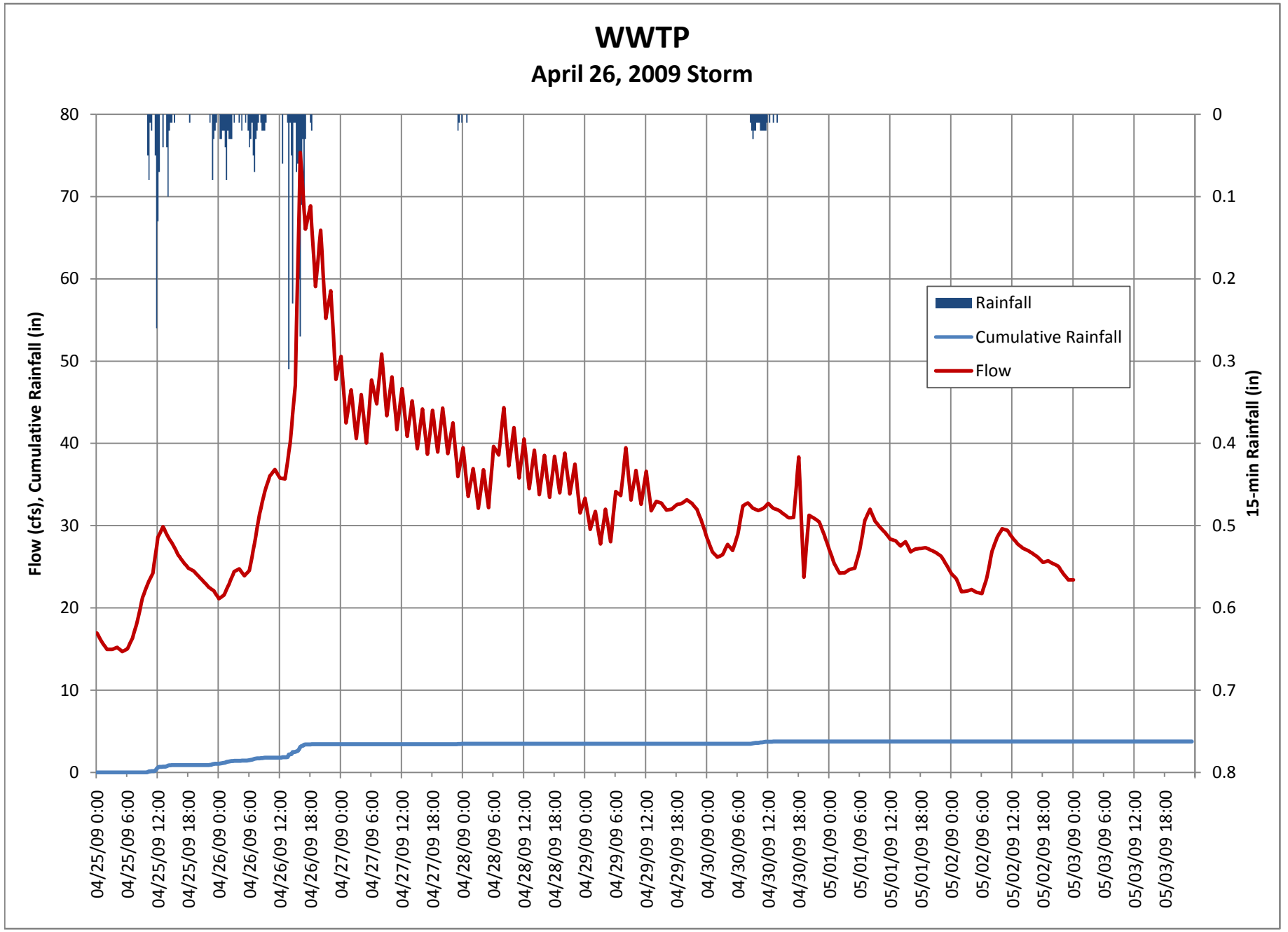

Flow Meter #17 & #18
April 26, 2009 Storm
Flow (cfs), Cumulative Rainfall (in), Level (ft)
15-min Rainfall (in)
Rainfall
Cumulative Rainfall
Flow 18
Flow 17
Flow 18 - 17
4
3.5
3
2.5
2
1.5
1
0.5
0
0
0.4
0.8
1.2
1.6
2
2.4
04/25/09 0:00
04/25/09 6:00
04/25/09 12:00
04/25/09 18:00
04/26/09 0:00
04/26/09 6:00
04/26/09 12:00
04/26/09 18:00
04/27/09 0:00
04/27/09 6:00
04/27/09 12:00
04/27/09 18:00
04/28/09 0:00
04/28/09 6:00
04/28/09 12:00
04/28/09 18:00
04/29/09 0:00
04/29/09 6:00
04/29/09 12:00
04/29/09 18:00
04/30/09 0:00
04/30/09 6:00
04/30/09 12:00
04/30/09 18:00
05/01/09 0:00
05/01/09 6:00
05/01/09 12:00
05/01/09 18:00
05/02/09 0:00
05/02/09 6:00
05/02/09 12:00
05/02/09 18:00
05/03/09 0:00
05/03/09 6:00
05/03/09 12:00
05/03/09 18:00

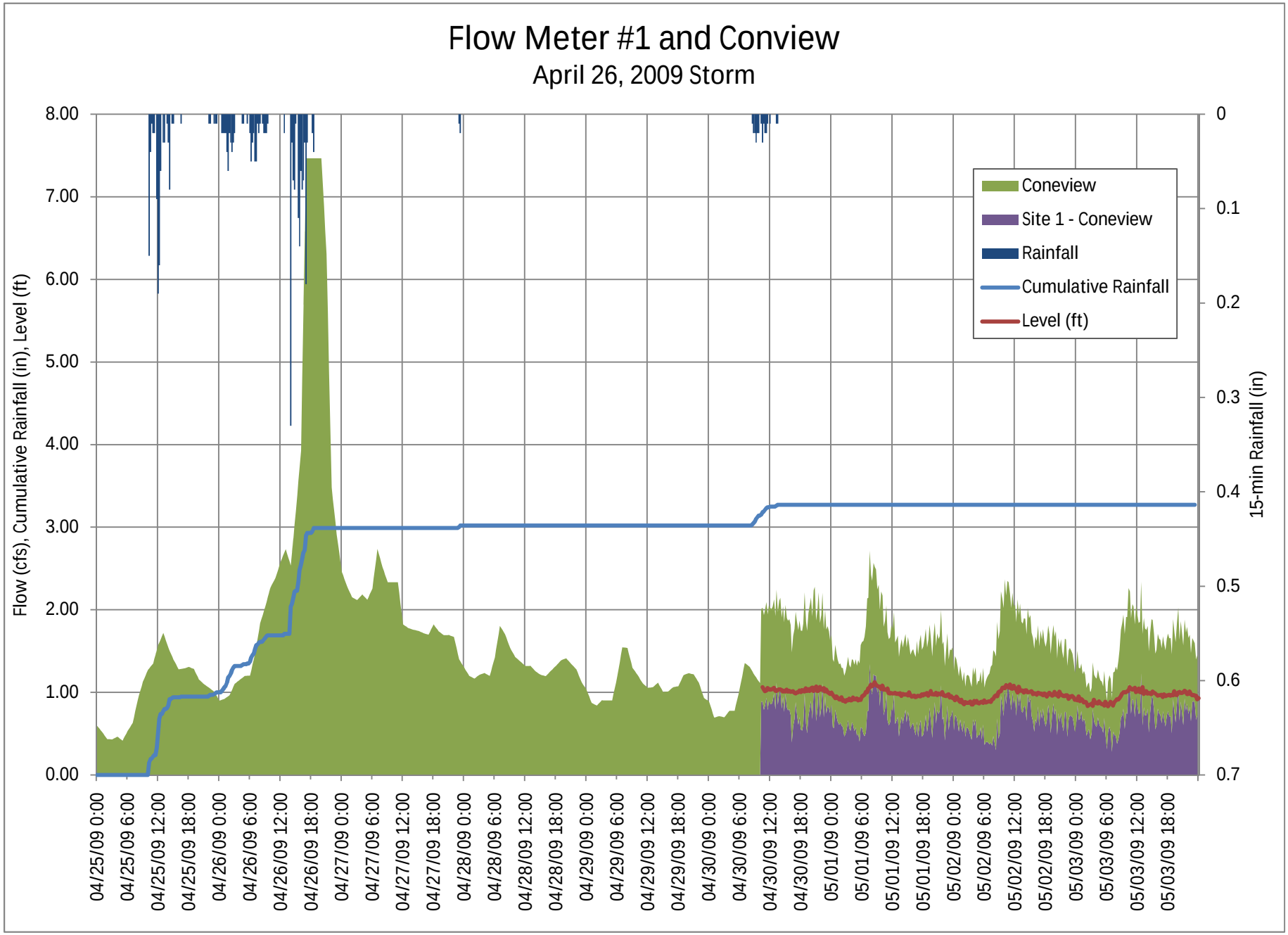

Flow Meter #19
April 26, 2009 Storm
Flow (cfs), Cumulative Rainfall (in), Level (ft)
15-min Rainfall (in)
Rainfall
Cumulative Rainfall
Flow
Level (ft)
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
4/25/09 0:00
4/25/09 6:00
4/25/09 12:00
4/25/09 18:00
4/26/09 0:00
4/26/09 6:00
4/26/09 12:00
4/26/09 18:00
4/27/09 0:00
4/27/09 6:00
4/27/09 12:00
4/27/09 18:00
4/28/09 0:00
4/28/09 6:00
4/28/09 12:00
4/28/09 18:00
4/29/09 0:00
4/29/09 6:00
4/29/09 12:00
4/29/09 18:00
4/30/09 0:00
4/30/09 6:00
4/30/09 12:00
4/30/09 18:00
5/1/09 0:00
5/1/09 6:00
5/1/09 12:00
5/1/09 18:00
5/2/09 0:00
5/2/09 6:00
5/2/09 12:00
5/2/09 18:00
5/3/09 0:00
5/3/09 6:00
5/3/09 12:00
5/3/09 18:00

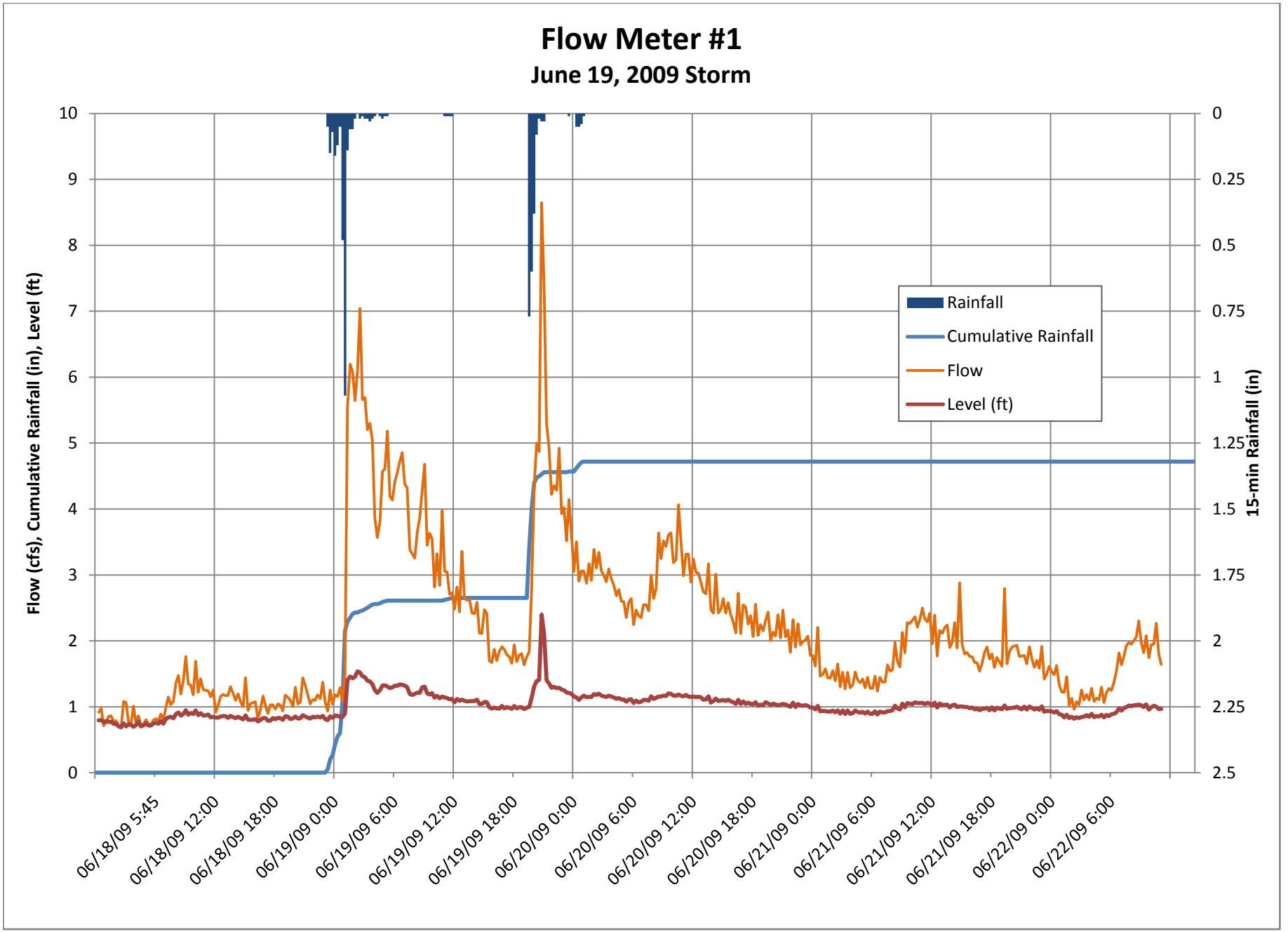

Coneview PS
April 26, 2009 Storm
Flow (cfs), Cumulative Rainfall (in), Level (ft)
15-min Rainfall (in)
Rainfall
Cumulative Rainfall
Flow
8
7
6
5
4
3
2
1
0
-0.1
6E-16
0.1
0.2
0.3
0.4
0.5
0.6
04/25/09 0:00
04/25/09 6:00
04/25/09 12:00
04/25/09 18:00
04/26/09 0:00
04/26/09 6:00
04/26/09 12:00
04/26/09 18:00
04/27/09 0:00
04/27/09 6:00
04/27/09 12:00
04/27/09 18:00
04/28/09 0:00
04/28/09 6:00
04/28/09 12:00
04/28/09 18:00
04/29/09 0:00
04/29/09 6:00
04/29/09 12:00
04/29/09 18:00
04/30/09 0:00
04/30/09 6:00
04/30/09 12:00
04/30/09 18:00
05/01/09 0:00
05/01/09 6:00
05/01/09 12:00
05/01/09 18:00
05/02/09 0:00
05/02/09 6:00
05/02/09 12:00
05/02/09 18:00
05/03/09 0:00
05/03/09 6:00
05/03/09 12:00
05/03/09 18:00

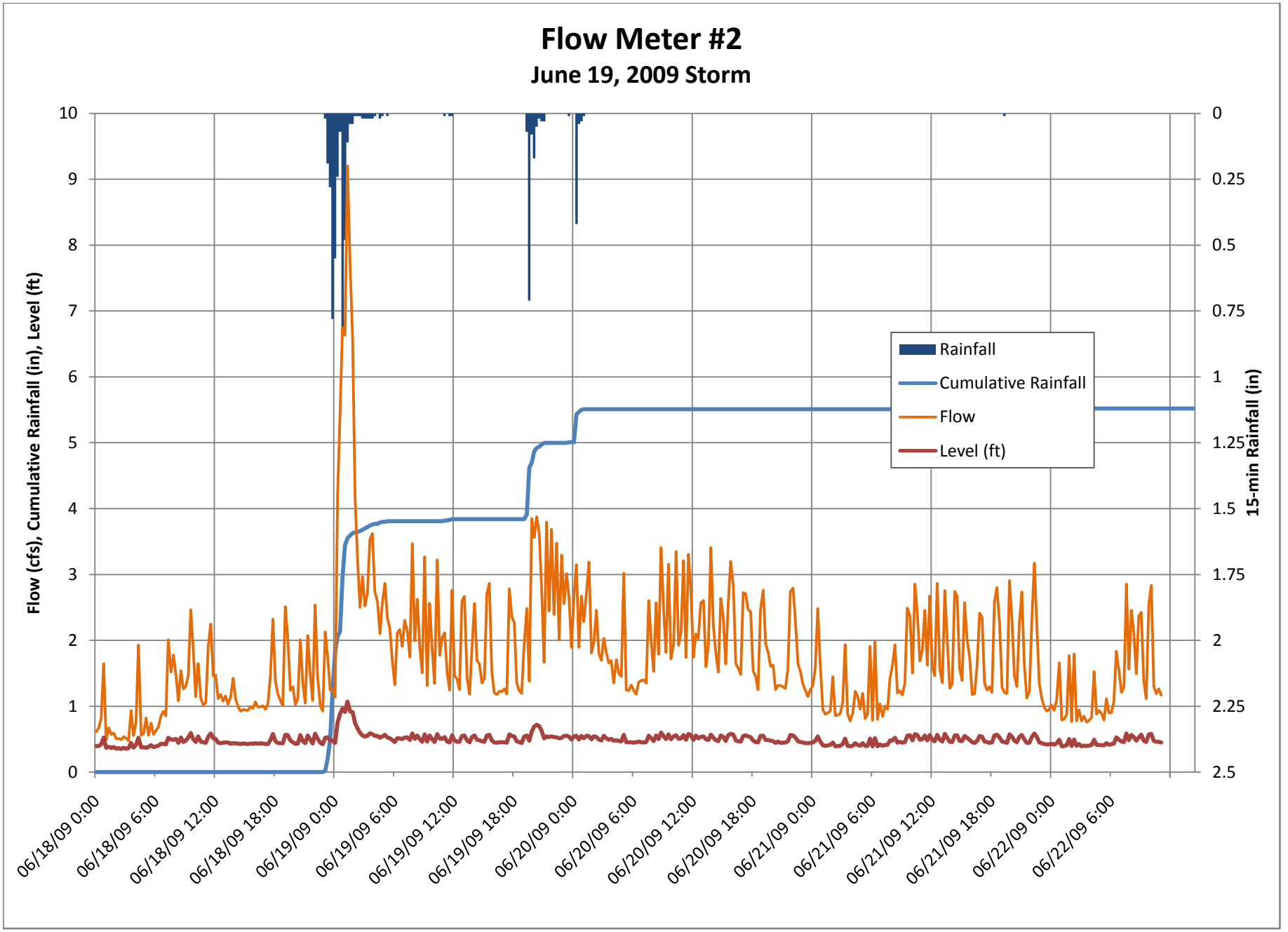

Pebble Valley PS
April 26, 2009 Storm
Flow (cfs), Cumulative Rainfall (in), Level (ft)
15-min Rainfall (in)
Rainfall
Cumulative Rainfall
Flow
0
1
2
3
4
5
6
0.6
0.5
0.4
0.3
0.2
0.1
0
04/25/09 0:00
04/25/09 6:00
04/25/09 12:00
04/25/09 18:00
04/26/09 0:00
04/26/09 6:00
04/26/09 12:00
04/26/09 18:00
04/27/09 0:00
04/27/09 6:00
04/27/09 12:00
04/27/09 18:00
04/28/09 0:00
04/28/09 6:00
04/28/09 12:00
04/28/09 18:00
04/29/09 0:00
04/29/09 6:00
04/29/09 12:00
04/29/09 18:00
04/30/09 0:00
04/30/09 6:00
04/30/09 12:00
04/30/09 18:00
05/01/09 0:00
05/01/09 6:00
05/01/09 12:00
05/01/09 18:00
05/02/09 0:00
05/02/09 6:00
05/02/09 12:00
05/02/09 18:00
05/03/09 0:00
05/03/09 6:00
05/03/09 12:00
05/03/09 18:00

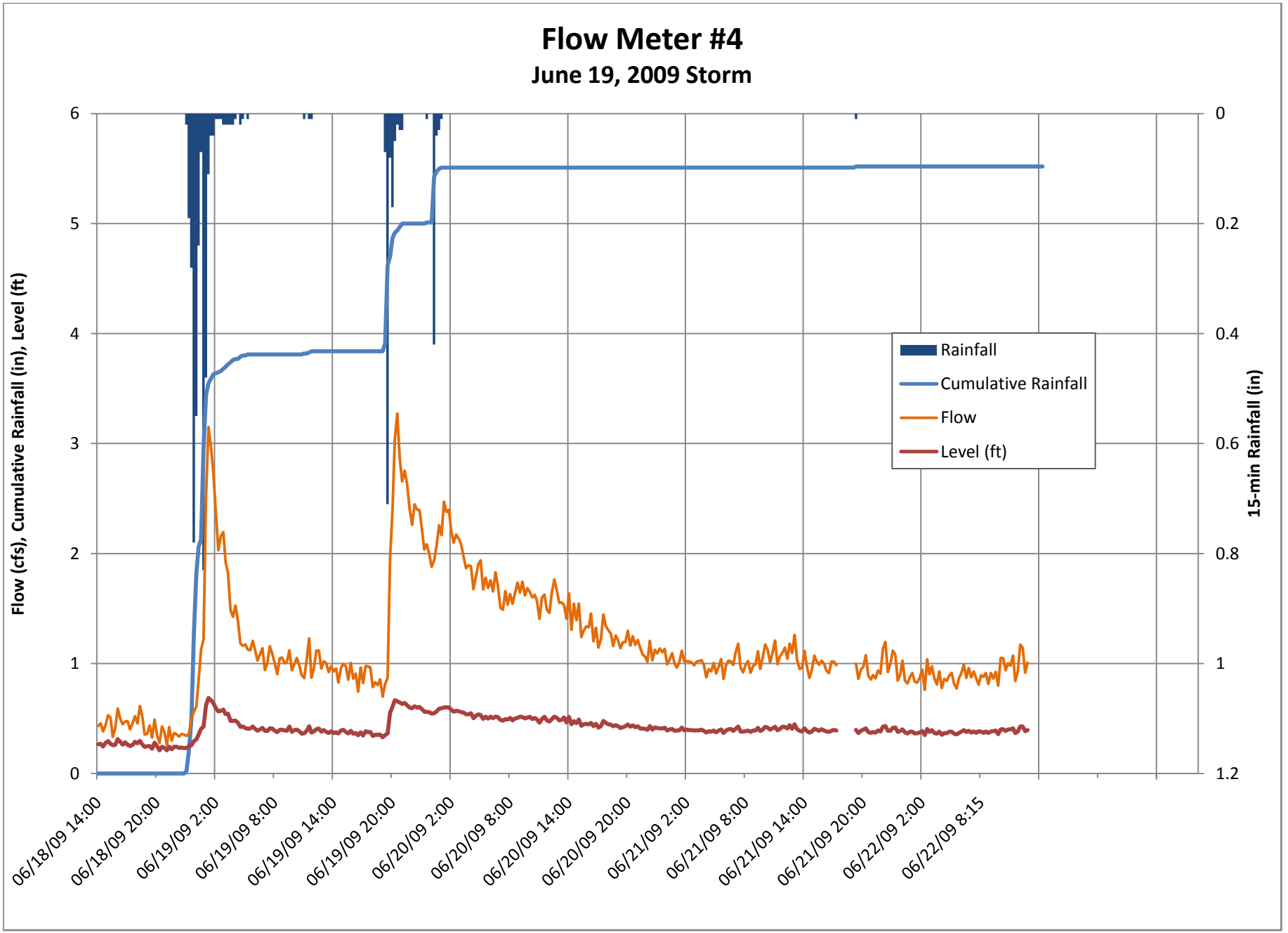

Heyer PS
April 26, 2009 Storm
Flow (cfs), Cumulative Rainfall (in), Level (ft)
15-min Rainfall (in)
Rainfall
Cumulative Rainfall
Flow
0
1
2
3
4
5
6
7
8
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
04/25/09 0:00
04/25/09 6:00
04/25/09 12:00
04/25/09 18:00
04/26/09 0:00
04/26/09 6:00
04/26/09 12:00
04/26/09 18:00
04/27/09 0:00
04/27/09 6:00
04/27/09 12:00
04/27/09 18:00
04/28/09 0:00
04/28/09 6:00
04/28/09 12:00
04/28/09 18:00
04/29/09 0:00
04/29/09 6:00
04/29/09 12:00
04/29/09 18:00
04/30/09 0:00
04/30/09 6:00
04/30/09 12:00
04/30/09 18:00
05/01/09 0:00
05/01/09 6:00
05/01/09 12:00
05/01/09 18:00
05/02/09 0:00
05/02/09 6:00
05/02/09 12:00
05/02/09 18:00
05/03/09 0:00
05/03/09 6:00
05/03/09 12:00
05/03/09 18:00

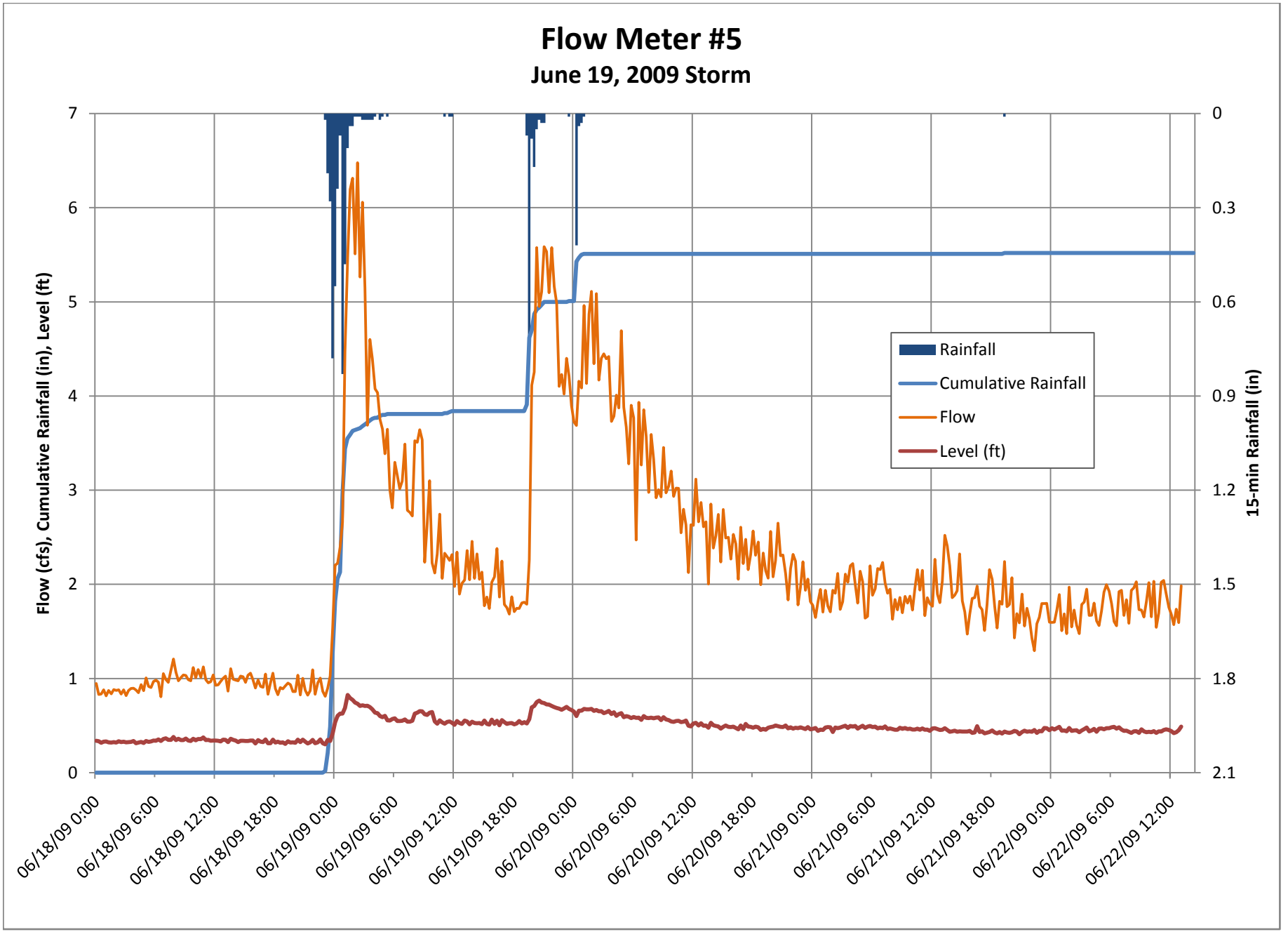

WWTP
April 26, 2009 Storm
Flow (cfs), Cumulative Rainfall (in)
15-min Rainfall (in)
Rainfall
Cumulative Rainfall
Flow
80
70
60
50
40
30
20
10
0
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
04/25/09 0:00
04/25/09 6:00
04/25/09 12:00
04/25/09 18:00
04/26/09 0:00
04/26/09 6:00
04/26/09 12:00
04/26/09 18:00
04/27/09 0:00
04/27/09 6:00
04/27/09 12:00
04/27/09 18:00
04/28/09 0:00
04/28/09 6:00
04/28/09 12:00
04/28/09 18:00
04/29/09 0:00
04/29/09 6:00
04/29/09 12:00
04/29/09 18:00
04/30/09 0:00
04/30/09 6:00
04/30/09 12:00
04/30/09 18:00
05/01/09 0:00
05/01/09 6:00
05/01/09 12:00
05/01/09 18:00
05/02/09 0:00
05/02/09 6:00
05/02/09 12:00
05/02/09 18:00
05/03/09 0:00
05/03/09 6:00
05/03/09 12:00
05/03/09 18:00

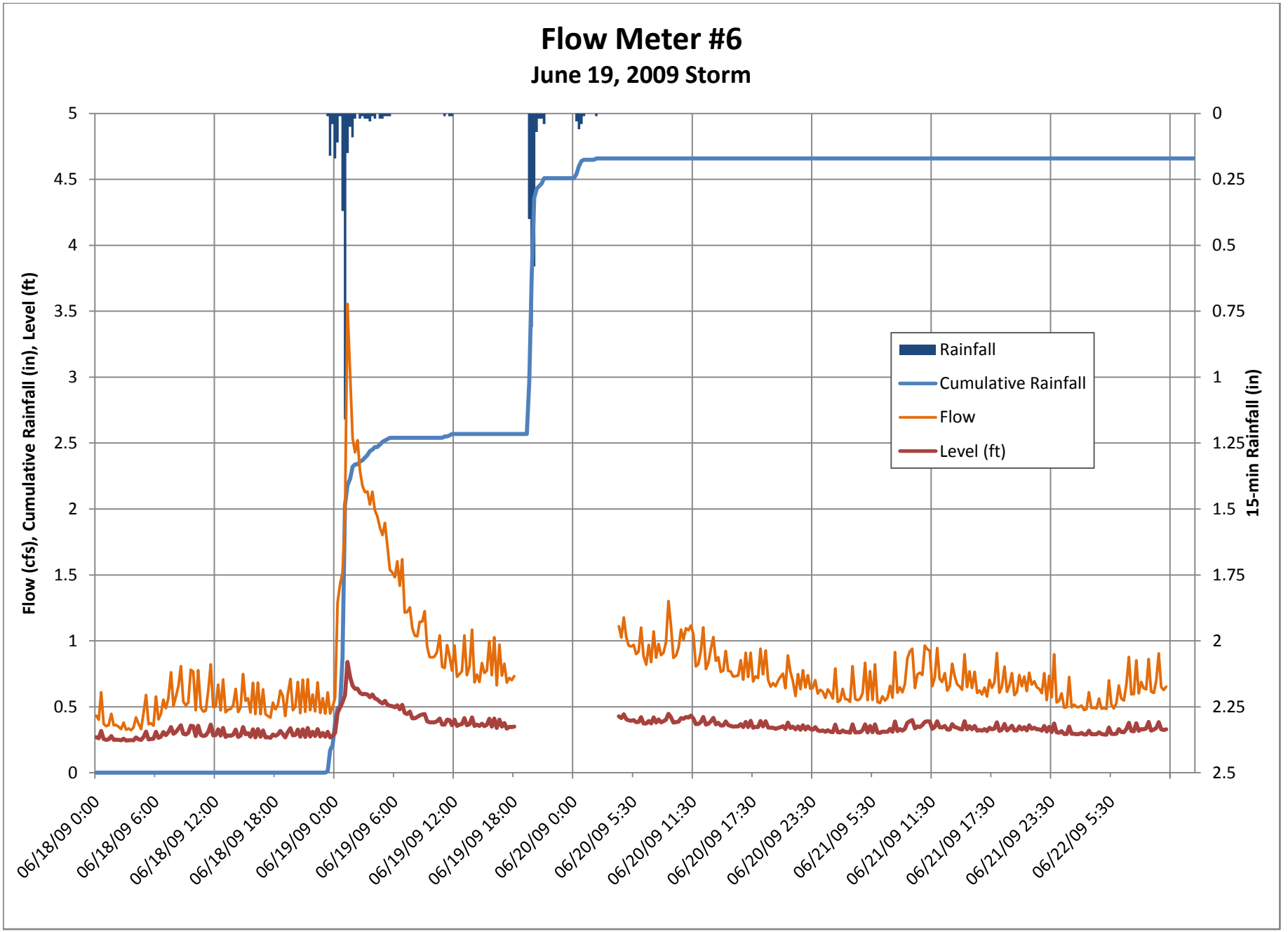

Flow Meter #1 and Conview
April 26, 2009 Storm
Flow (cfs), Cumulative Rainfall (in), Level (ft)
15-min Rainfall (in)
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
Coneview
Site 1 - Coneview
Rainfall
Cumulative Rainfall
Level (ft)
04/25/09 0:00
04/25/09 6:00
04/25/09 12:00
04/25/09 18:00
04/26/09 0:00
04/26/09 6:00
04/26/09 12:00
04/26/09 18:00
04/27/09 0:00
04/27/09 6:00
04/27/09 12:00
04/27/09 18:00
04/28/09 0:00
04/28/09 6:00
04/28/09 12:00
04/28/09 18:00
04/29/09 0:00
04/29/09 6:00
04/29/09 12:00
04/29/09 18:00
04/30/09 0:00
04/30/09 6:00
04/30/09 12:00
04/30/09 18:00
05/01/09 0:00
05/01/09 6:00
05/01/09 12:00
05/01/09 18:00
05/02/09 0:00
05/02/09 6:00
05/02/09 12:00
05/02/09 18:00
05/03/09 0:00
05/03/09 6:00
05/03/09 12:00
05/03/09 18:00

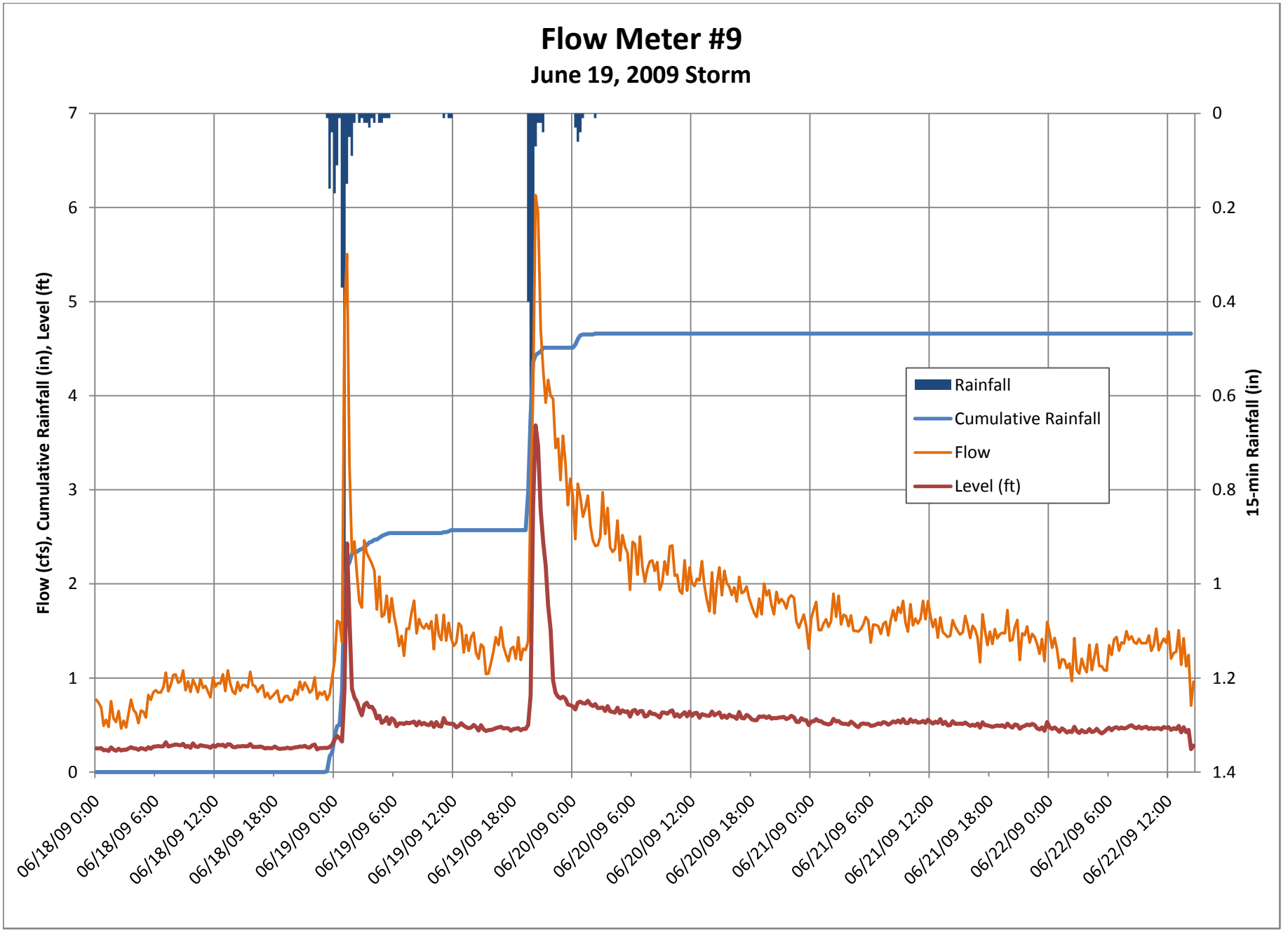

Flow Meter #1
June 19, 2009 Storm
Flow (cfs), Cumulative Rainfall (in), Level (ft)
15-min Rainfall (in)
Rainfall
Cumulative Rainfall
Flow
Level (ft)
10
9
8
7
6
5
4
3
2
1
0
0
0.25
0.5
0.75
1
1.25
1.5
1.75
2
2.25
2.5
06/18/09 5:45
06/18/09 12:00
06/18/09 18:00
06/19/09 0:00
06/19/09 6:00
06/19/09 12:00
06/19/09 18:00
06/20/09 0:00
06/20/09 6:00
06/20/09 12:00
06/20/09 18:00
06/21/09 0:00
06/21/09 6:00
06/21/09 12:00
06/21/09 18:00
06/22/09 0:00
06/22/09 6:00

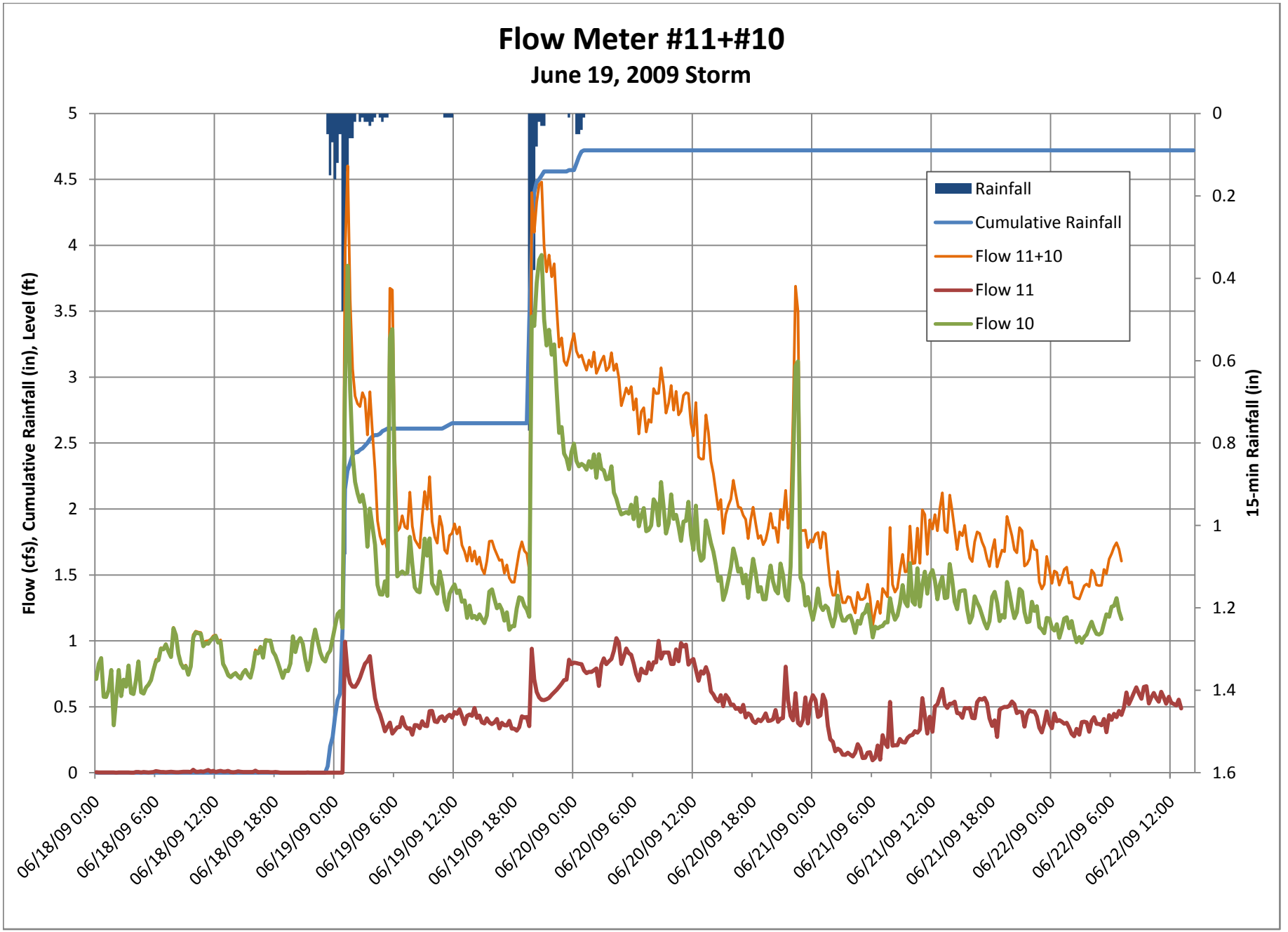

Flow Meter #2
June 19, 2009 Storm
Flow (cfs), Cumulative Rainfall (in), Level (ft)
15-min Rainfall (in)
Rainfall
Cumulative Rainfall
Flow
Level (ft)
10
9
8
7
6
5
4
3
2
1
0
0
0.25
0.5
0.75
1
1.25
1.5
1.75
2
2.25
2.5
06/18/09 0:00
06/18/09 6:00
06/18/09 12:00
06/18/09 18:00
06/19/09 0:00
06/19/09 6:00
06/19/09 12:00
06/19/09 18:00
06/20/09 0:00
06/20/09 6:00
06/20/09 12:00
06/20/09 18:00
06/21/09 0:00
06/21/09 6:00
06/21/09 12:00
06/21/09 18:00
06/22/09 0:00
06/22/09 6:00

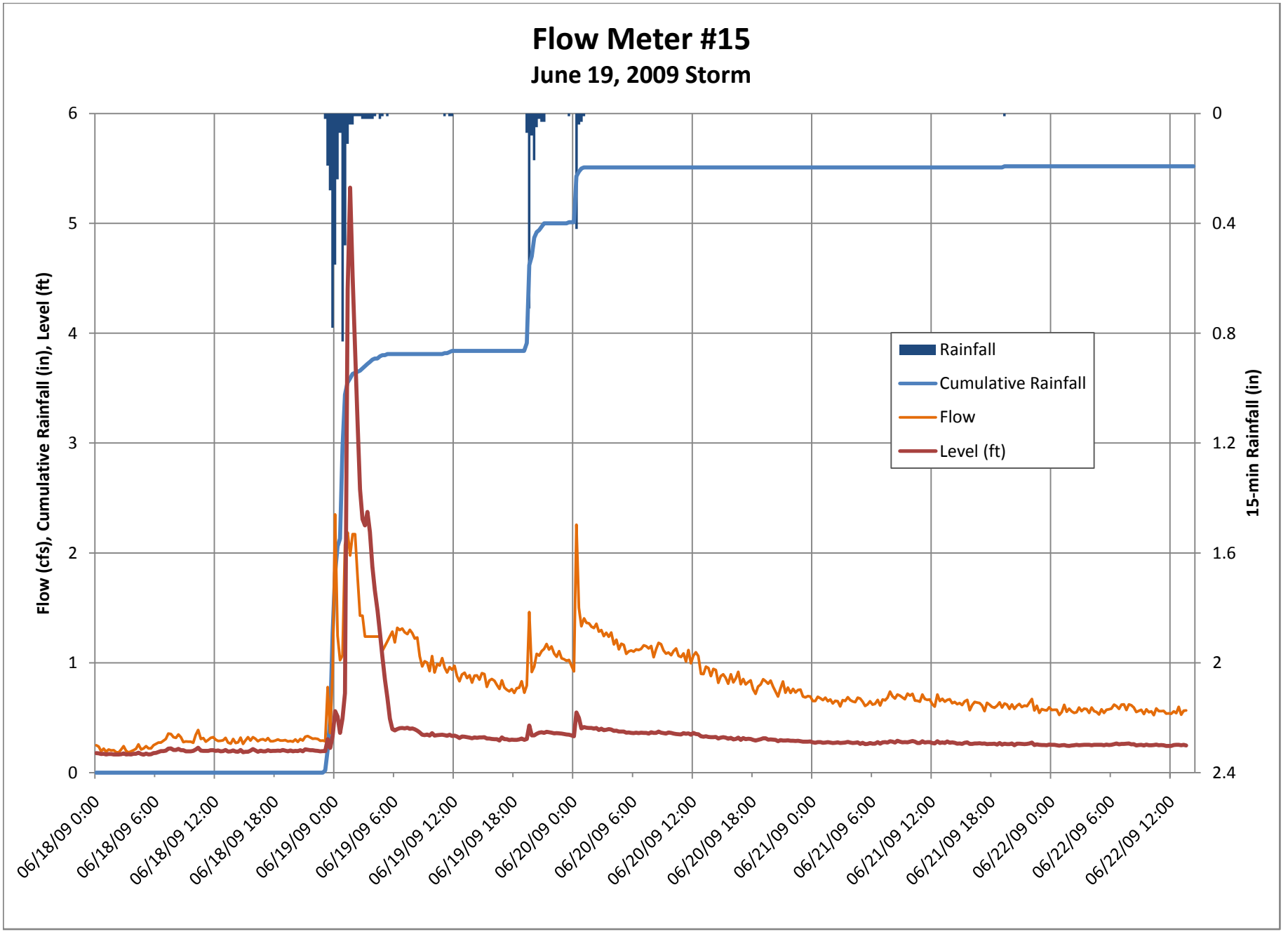

Flow Meter #4
June 19, 2009 Storm
Flow (cfs), Cumulative Rainfall (in), Level (ft)
15-min Rainfall (in)
Rainfall
Cumulative Rainfall
Flow
Level (ft)
0
1
2
3
4
5
6
0
0.2
0.4
0.6
0.8
1
1.2
06/18/09 14:00
06/18/09 20:00
06/19/09 2:00
06/19/09 8:00
06/19/09 14:00
06/19/09 20:00
06/20/09 2:00
06/20/09 8:00
06/20/09 14:00
06/20/09 20:00
06/21/09 2:00
06/21/09 8:00
06/21/09 14:00
06/21/09 20:00
06/22/09 2:00
06/22/09 8:15

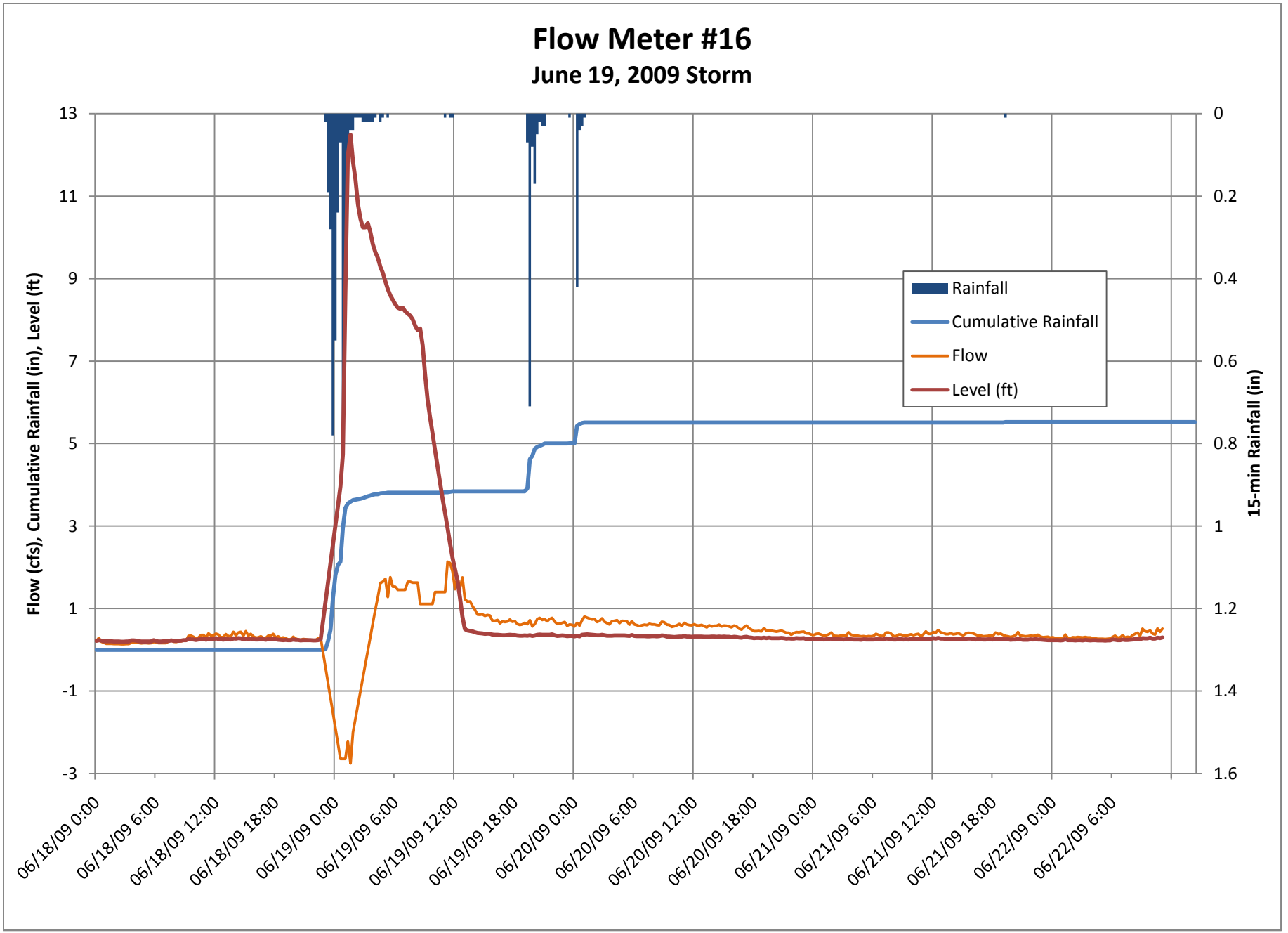

Flow Meter #5
June 19, 2009 Storm
Flow (cfs), Cumulative Rainfall (in), Level (ft)
15-min Rainfall (in)
Rainfall
Cumulative Rainfall
Flow
Level (ft)
0
1
2
3
4
5
6
7
0
0.3
0.6
0.9
1.2
1.5
1.8
2.1
06/18/09 0:00
06/18/09 6:00
06/18/09 12:00
06/18/09 18:00
06/19/09 0:00
06/19/09 6:00
06/19/09 12:00
06/19/09 18:00
06/20/09 0:00
06/20/09 6:00
06/20/09 12:00
06/20/09 18:00
06/21/09 0:00
06/21/09 6:00
06/21/09 12:00
06/21/09 18:00
06/22/09 0:00
06/22/09 6:00
06/22/09 12:00

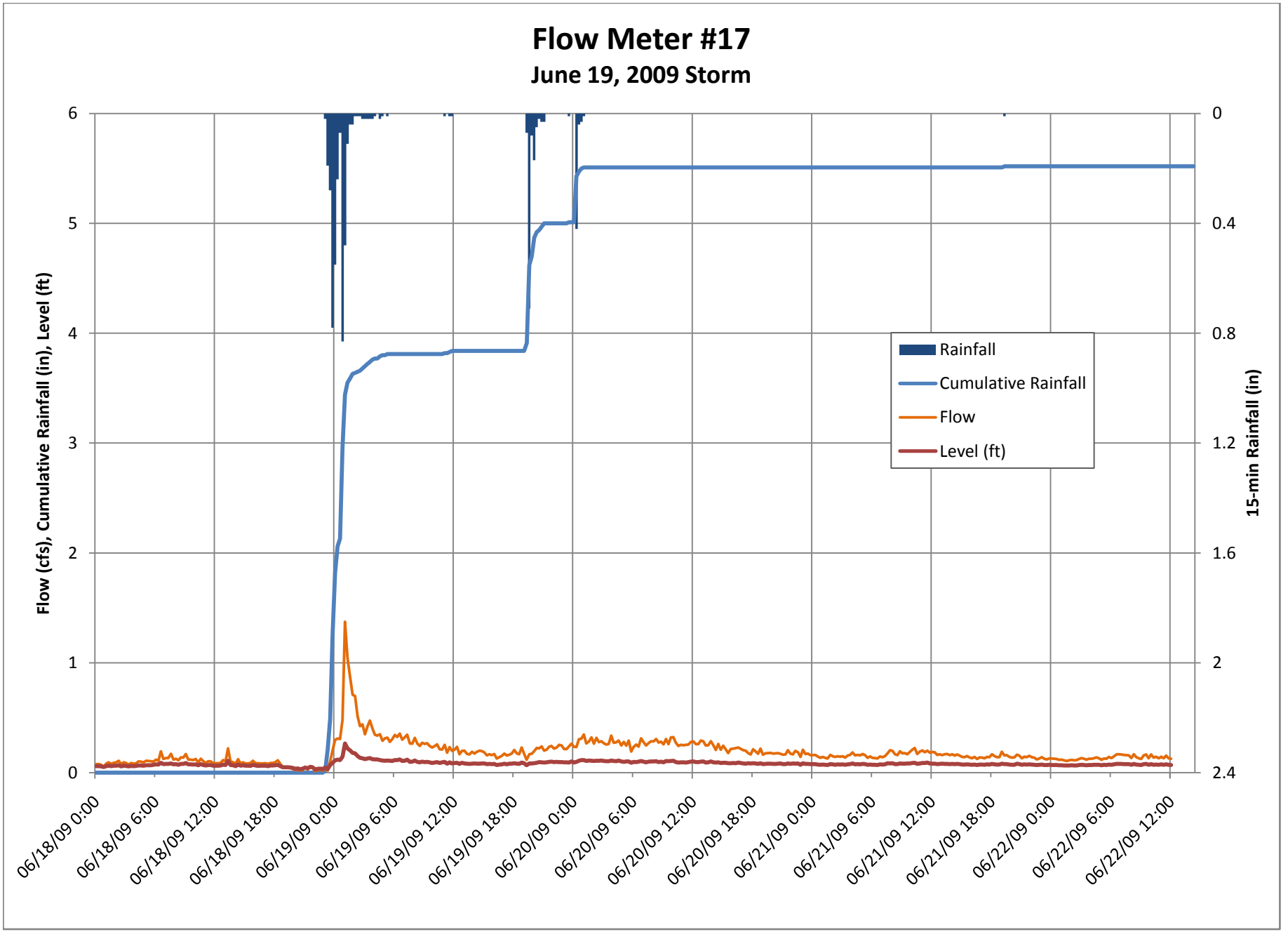

Flow Meter #6
June 19, 2009 Storm
Flow (cfs), Cumulative Rainfall (in), Level (ft)
15-min Rainfall (in)
Rainfall
Cumulative Rainfall
Flow
Level (ft)
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
0
0.25
0.5
0.75
1
1.25
1.5
1.75
2
2.25
2.5
06/18/09 0:00
06/18/09 6:00
06/18/09 12:00
06/18/09 18:00
06/19/09 0:00
06/19/09 6:00
06/19/09 12:00
06/19/09 18:00
06/20/09 0:00
06/20/09 5:30
06/20/09 11:30
06/20/09 17:30
06/20/09 23:30
06/21/09 5:30
06/21/09 11:30
06/21/09 17:30
06/21/09 23:30
06/22/09 5:30

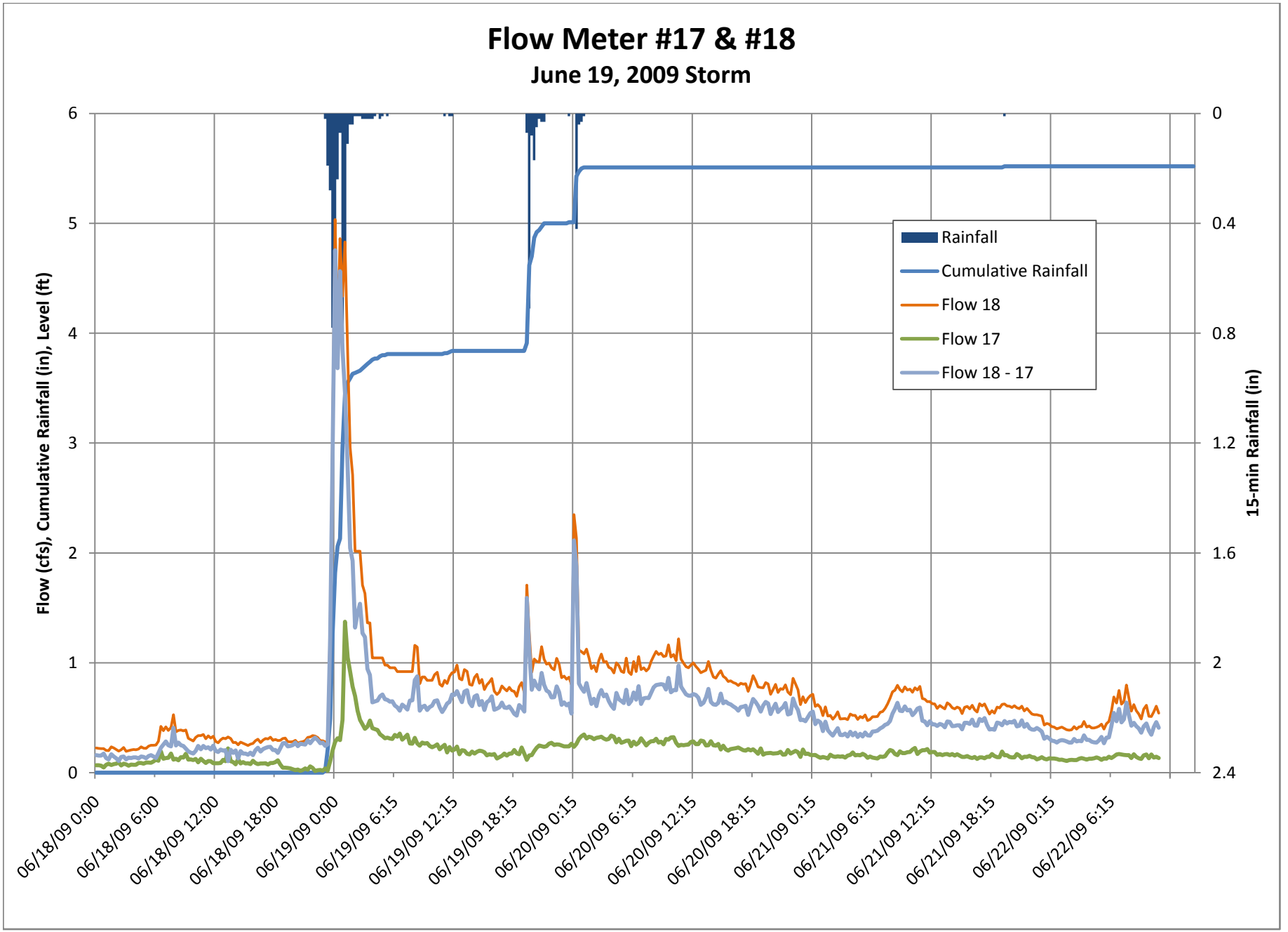

Flow Meter #9
June 19, 2009 Storm
Flow (cfs), Cumulative Rainfall (in), Level (ft)
15-min Rainfall (in)
Rainfall
Cumulative Rainfall
Flow
Level (ft)
0
1
2
3
4
5
6
7
0
0.2
0.4
0.6
0.8
1
1.2
1.4
06/18/09 0:00
06/18/09 6:00
06/18/09 12:00
06/18/09 18:00
06/19/09 0:00
06/19/09 6:00
06/19/09 12:00
06/19/09 18:00
06/20/09 0:00
06/20/09 6:00
06/20/09 12:00
06/20/09 18:00
06/21/09 0:00
06/21/09 6:00
06/21/09 12:00
06/21/09 18:00
06/22/09 0:00
06/22/09 6:00
06/22/09 12:00

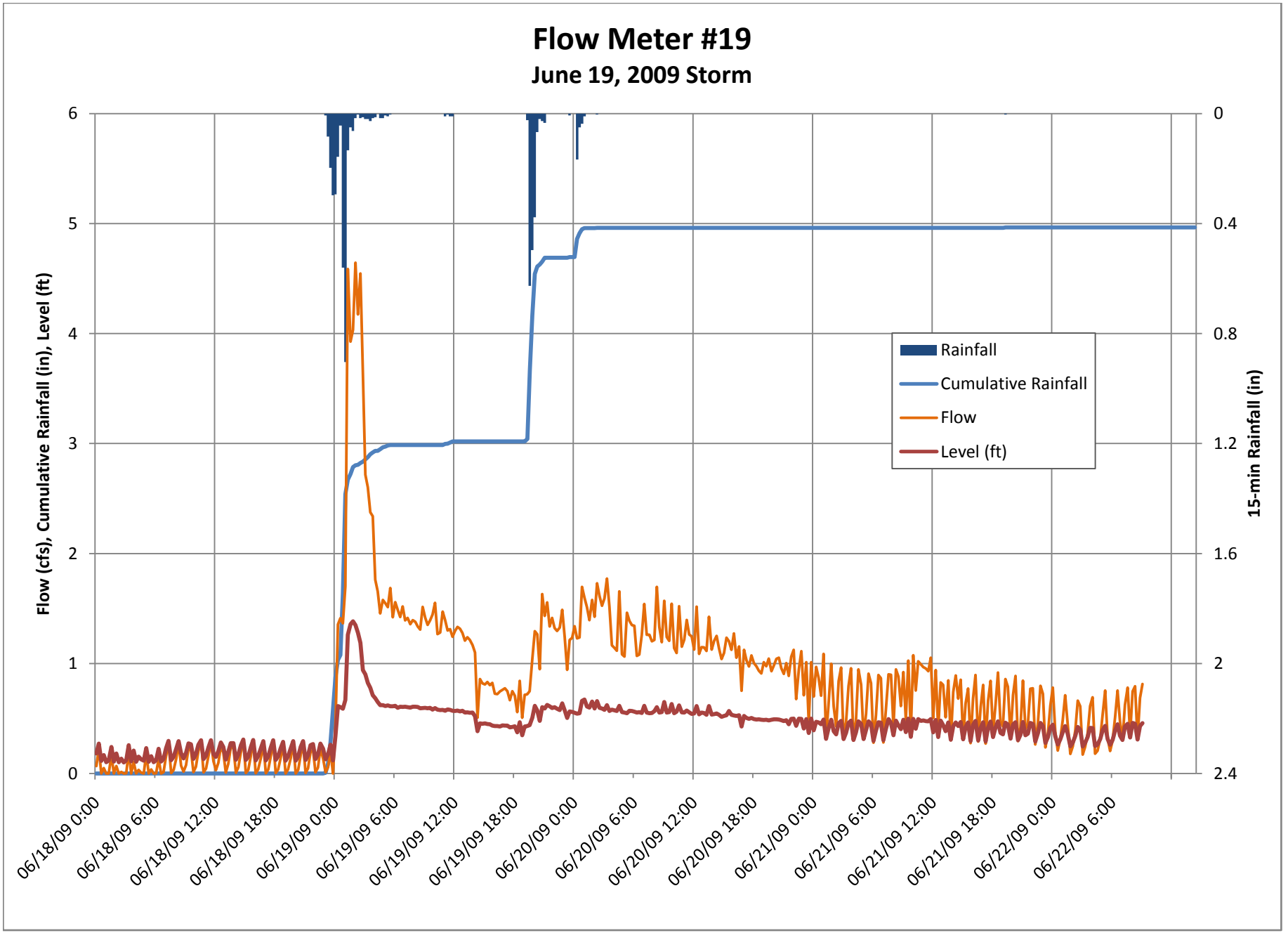

Flow Meter #11+#10
June 19, 2009 Storm
Flow (cfs), Cumulative Rainfall (in), Level (ft)
15-min Rainfall (in)
Rainfall
Cumulative Rainfall
Flow 11+10
Flow 11
Flow 10
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
06/18/09 0:00
06/18/09 6:00
06/18/09 12:00
06/18/09 18:00
06/19/09 0:00
06/19/09 6:00
06/19/09 12:00
06/19/09 18:00
06/20/09 0:00
06/20/09 6:00
06/20/09 12:00
06/20/09 18:00
06/21/09 0:00
06/21/09 6:00
06/21/09 12:00
06/21/09 18:00
06/22/09 0:00
06/22/09 6:00
06/22/09 12:00

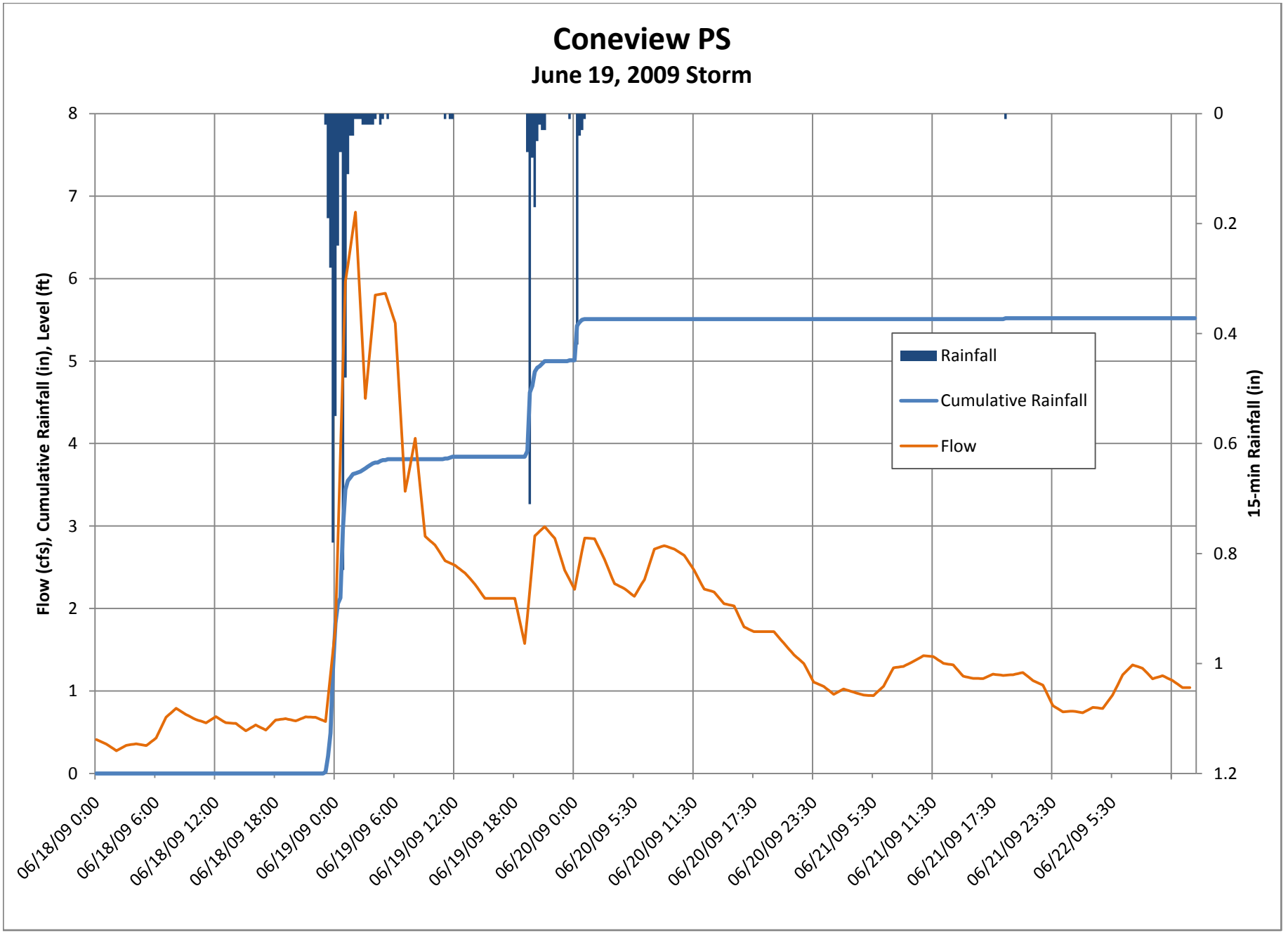

Flow Meter #15
June 19, 2009 Storm
Flow (cfs), Cumulative Rainfall (in), Level (ft)
15-min Rainfall (in)
Rainfall
Cumulative Rainfall
Flow
Level (ft)
0
1
2
3
4
5
6
0
0.4
0.8
1.2
1.6
2
2.4
06/18/09 0:00
06/18/09 6:00
06/18/09 12:00
06/18/09 18:00
06/19/09 0:00
06/19/09 6:00
06/19/09 12:00
06/19/09 18:00
06/20/09 0:00
06/20/09 6:00
06/20/09 12:00
06/20/09 18:00
06/21/09 0:00
06/21/09 6:00
06/21/09 12:00
06/21/09 18:00
06/22/09 0:00
06/22/09 6:00
06/22/09 12:00

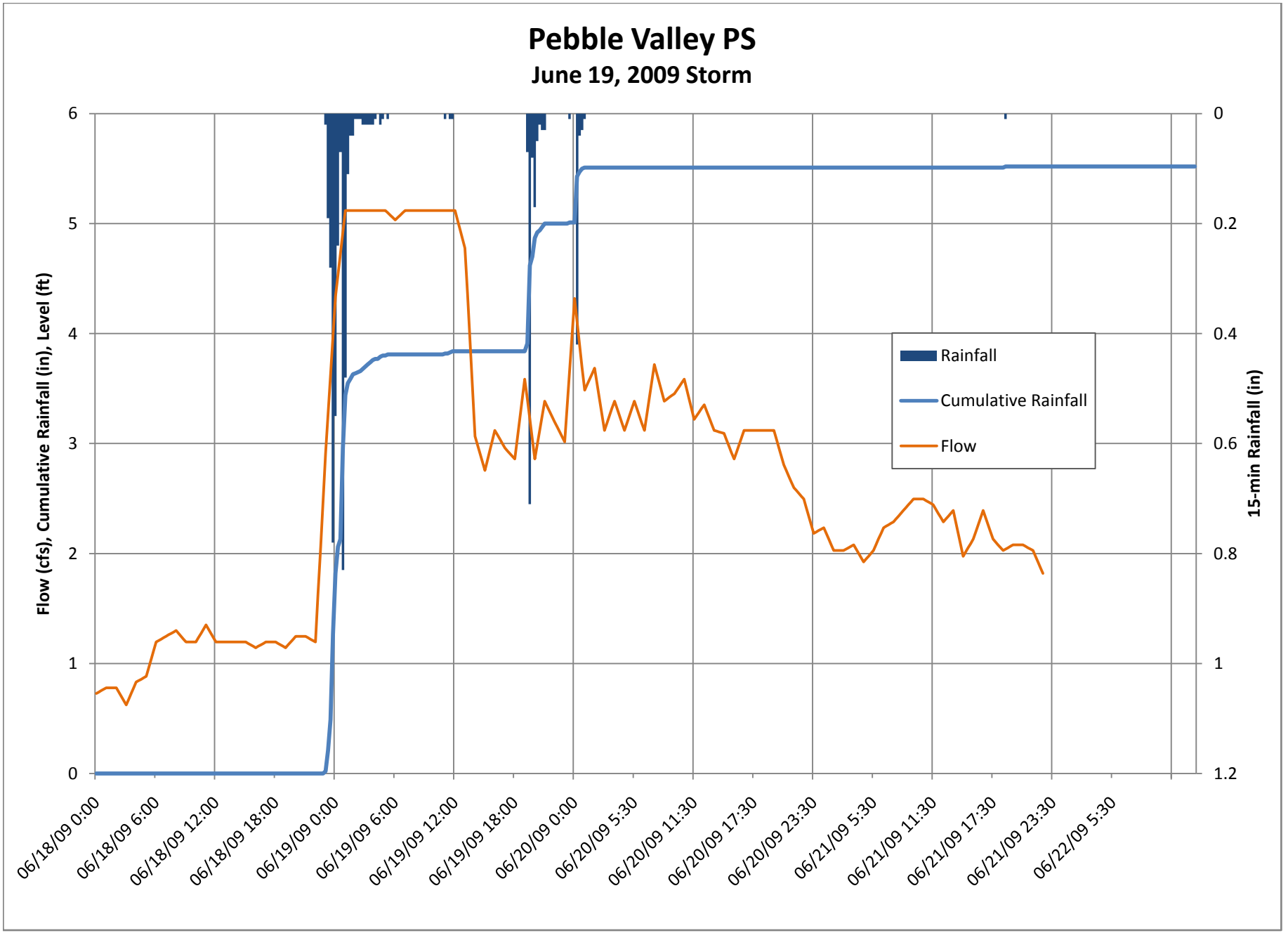

Flow Meter #16
June 19, 2009 Storm
Flow (cfs), Cumulative Rainfall (in), Level (ft)
15-min Rainfall (in)
13
11
9
7
5
3
1
-1
-3
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
Rainfall
Cumulative Rainfall
Flow
Level (ft)
06/18/09 0:00
06/18/09 6:00
06/18/09 12:00
06/18/09 18:00
06/19/09 0:00
06/19/09 6:00
06/19/09 12:00
06/19/09 18:00
06/20/09 0:00
06/20/09 6:00
06/20/09 12:00
06/20/09 18:00
06/21/09 0:00
06/21/09 6:00
06/21/09 12:00
06/21/09 18:00
06/22/09 0:00
06/22/09 6:00

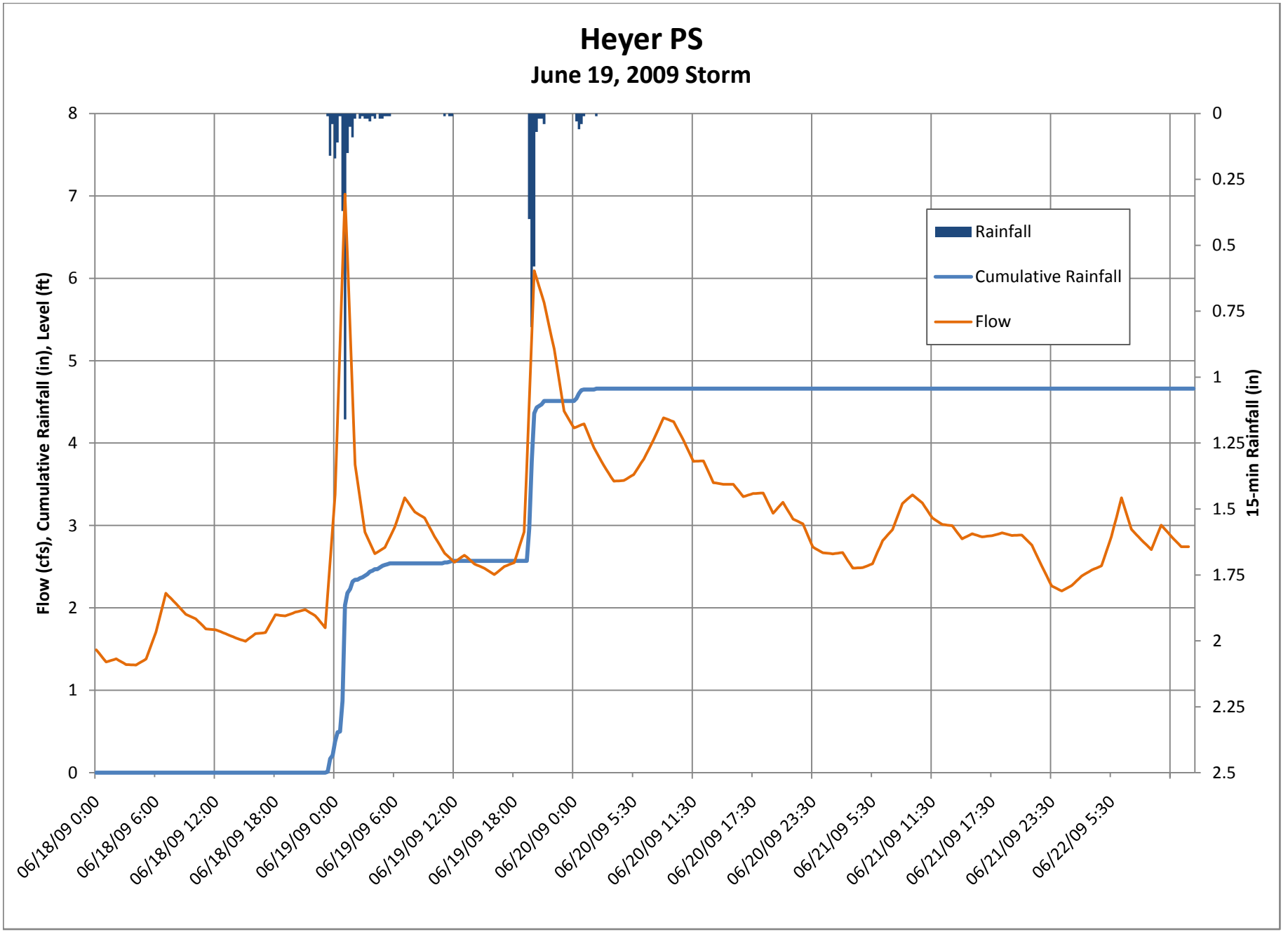

Flow Meter #17
June 19, 2009 Storm
Flow (cfs), Cumulative Rainfall (in), Level (ft)
15-min Rainfall (in)
Rainfall
Cumulative Rainfall
Flow
Level (ft)
0
1
2
3
4
5
6
0
0.4
0.8
1.2
1.6
2
2.4
06/18/09 0:00
06/18/09 6:00
06/18/09 12:00
06/18/09 18:00
06/19/09 0:00
06/19/09 6:00
06/19/09 12:00
06/19/09 18:00
06/20/09 0:00
06/20/09 6:00
06/20/09 12:00
06/20/09 18:00
06/21/09 0:00
06/21/09 6:00
06/21/09 12:00
06/21/09 18:00
06/22/09 0:00
06/22/09 6:00
06/22/09 12:00

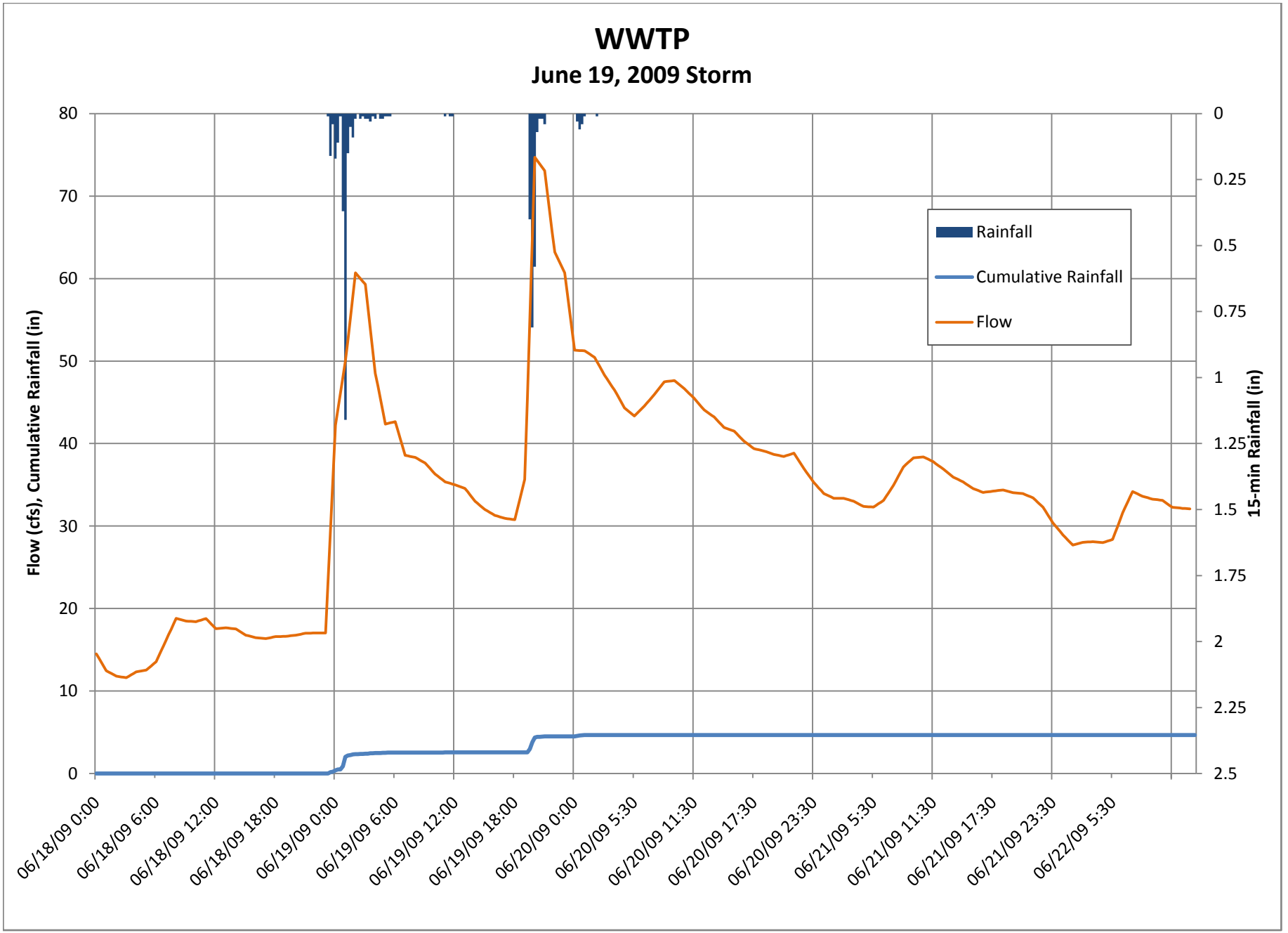

Flow Meter #17 & #18
June 19, 2009 Storm
Flow (cfs), Cumulative Rainfall (in), Level (ft)
15-min Rainfall (in)
Rainfall
Cumulative Rainfall
Flow 18
Flow 17
Flow 18 - 17
0
1
2
3
4
5
6
0
0.4
0.8
1.2
1.6
2
2.4
06/18/09 0:00
06/18/09 6:00
06/18/09 12:00
06/18/09 18:00
06/19/09 0:00
06/19/09 6:15
06/19/09 12:15
06/19/09 18:15
06/20/09 0:15
06/20/09 6:15
06/20/09 12:15
06/20/09 18:15
06/21/09 0:15
06/21/09 6:15
06/21/09 12:15
06/21/09 18:15
06/22/09 0:15
06/22/09 6:15


Flow Meter #19
June 19, 2009 Storm
Flow (cfs), Cumulative Rainfall (in), Level (ft)
15-min Rainfall (in)
Rainfall
Cumulative Rainfall
Flow
Level (ft)
0
1
2
3
4
5
6
0
0.4
0.8
1.2
1.6
2
2.4
06/18/09 0:00
06/18/09 6:00
06/18/09 12:00
06/18/09 18:00
06/19/09 0:00
06/19/09 6:00
06/19/09 12:00
06/19/09 18:00
06/20/09 0:00
06/20/09 6:00
06/20/09 12:00
06/20/09 18:00
06/21/09 0:00
06/21/09 6:00
06/21/09 12:00
06/21/09 18:00
06/22/09 0:00
06/22/09 6:00


Coneview PS
June 19, 2009 Storm
Flow (cfs), Cumulative Rainfall (in), Level (ft)
15-min Rainfall (in)
Rainfall
Cumulative Rainfall
Flow
0
1
2
3
4
5
6
7
8
0
0.2
0.4
0.6
0.8
1
1.2
06/18/09 0:00
06/18/09 6:00
06/18/09 12:00
06/18/09 18:00
06/19/09 0:00
06/19/09 6:00
06/19/09 12:00
06/19/09 18:00
06/20/09 0:00
06/20/09 5:30
06/20/09 11:30
06/20/09 17:30
06/20/09 23:30
06/21/09 5:30
06/21/09 11:30
06/21/09 17:30
06/21/09 23:30
06/22/09 5:30


Pebble Valley PS
June 19, 2009 Storm
Flow (cfs), Cumulative Rainfall (in), Level (ft)
15-min Rainfall (in)
Rainfall
Cumulative Rainfall
Flow
0
1
2
3
4
5
6
0
0.2
0.4
0.6
0.8
1
1.2
06/18/09 0:00
06/18/09 6:00
06/18/09 12:00
06/18/09 18:00
06/19/09 0:00
06/19/09 6:00
06/19/09 12:00
06/19/09 18:00
06/20/09 0:00
06/20/09 5:30
06/20/09 11:30
06/20/09 17:30
06/20/09 23:30
06/21/09 5:30
06/21/09 11:30
06/21/09 17:30
06/21/09 23:30
06/22/09 5:30

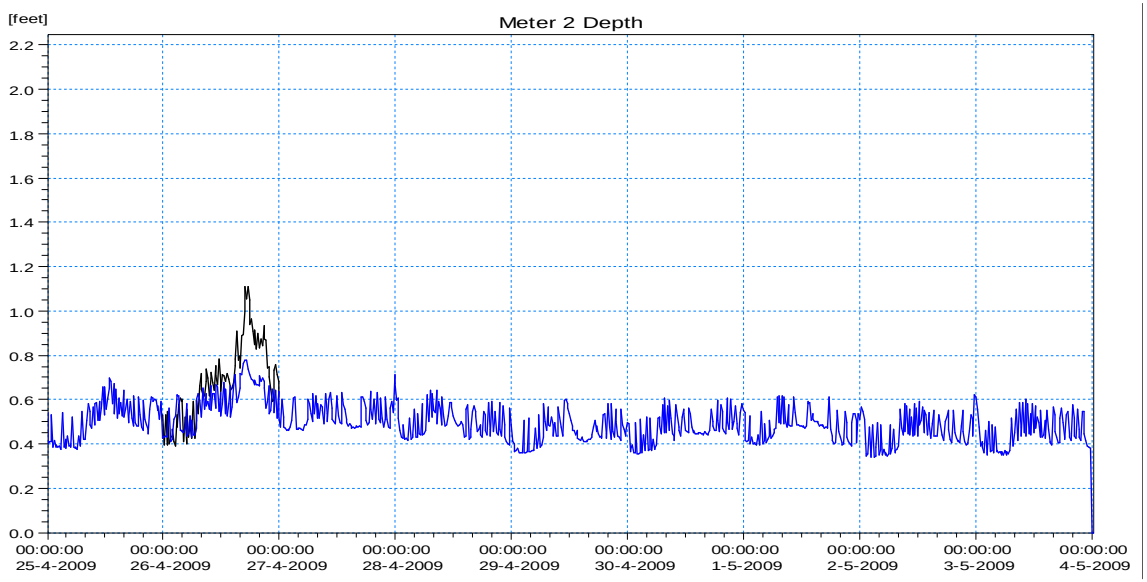

Heyer PS
June 19, 2009 Storm
Flow (cfs), Cumulative Rainfall (in), Level (ft)
15-min Rainfall (in)
Rainfall
Cumulative Rainfall
Flow
0
1
2
3
4
5
6
7
8
0
0.25
0.5
0.75
1
1.25
1.5
1.75
2
2.25
2.5
06/18/09 0:00
06/18/09 6:00
06/18/09 12:00
06/18/09 18:00
06/19/09 0:00
06/19/09 6:00
06/19/09 12:00
06/19/09 18:00
06/20/09 0:00
06/20/09 5:30
06/20/09 11:30
06/20/09 17:30
06/20/09 23:30
06/21/09 5:30
06/21/09 11:30
06/21/09 17:30
06/21/09 23:30
06/22/09 5:30

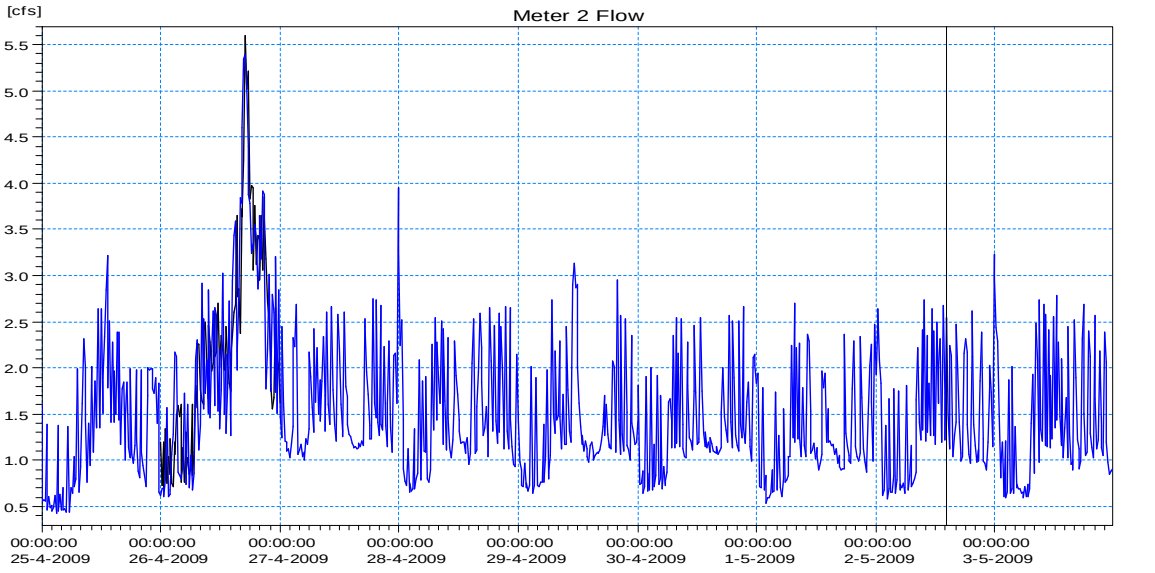

WWTP
June 19, 2009 Storm
Flow (cfs), Cumulative Rainfall (in)
15-min Rainfall (in)
Rainfall
Cumulative Rainfall
Flow
80
70
60
50
40
30
20
10
0
0
0.25
0.5
0.75
1
1.25
1.5
1.75
2
2.25
2.5
06/18/09 0:00
06/18/09 6:00
06/18/09 12:00
06/18/09 18:00
06/19/09 0:00
06/19/09 6:00
06/19/09 12:00
06/19/09 18:00
06/20/09 0:00
06/20/09 5:30
06/20/09 11:30
06/20/09 17:30
06/20/09 23:30
06/21/09 5:30
06/21/09 11:30
06/21/09 17:30
06/21/09 23:30
06/22/09 5:30

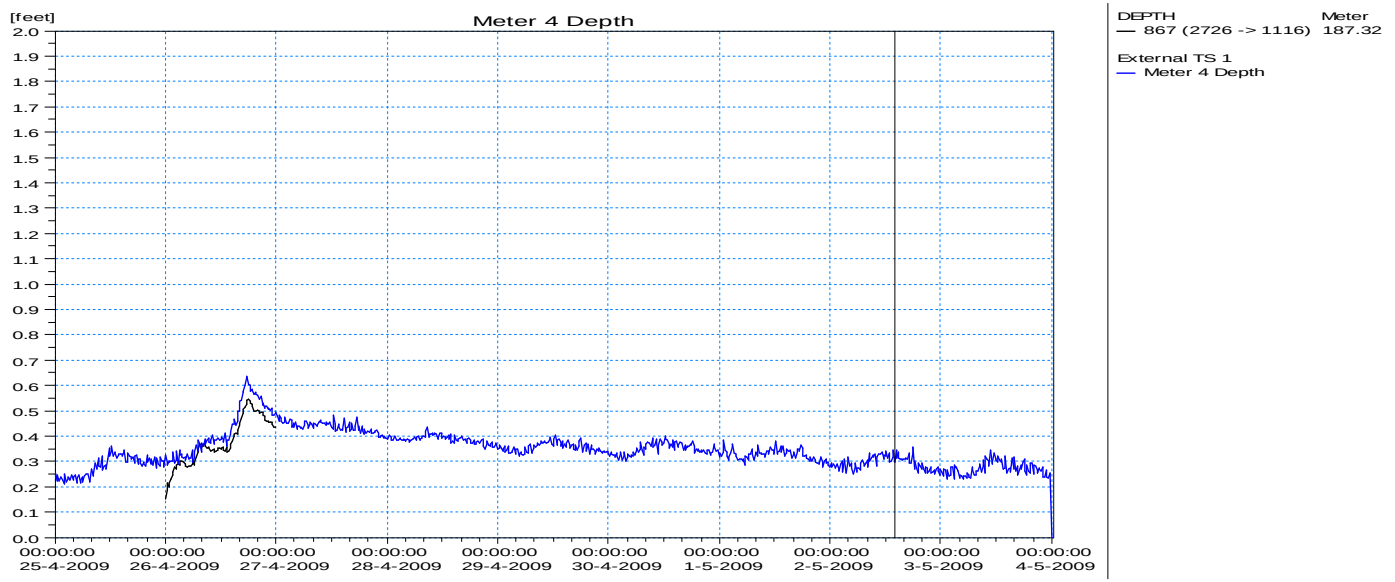
Appendix H

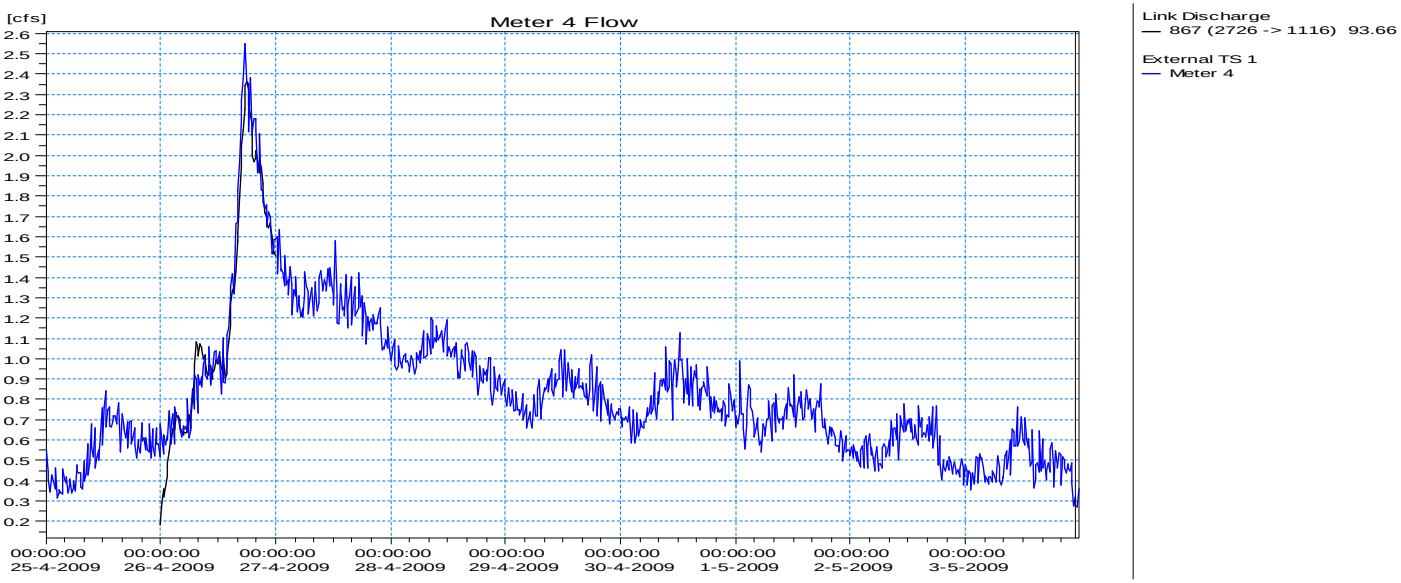
Model Calibration Graphs

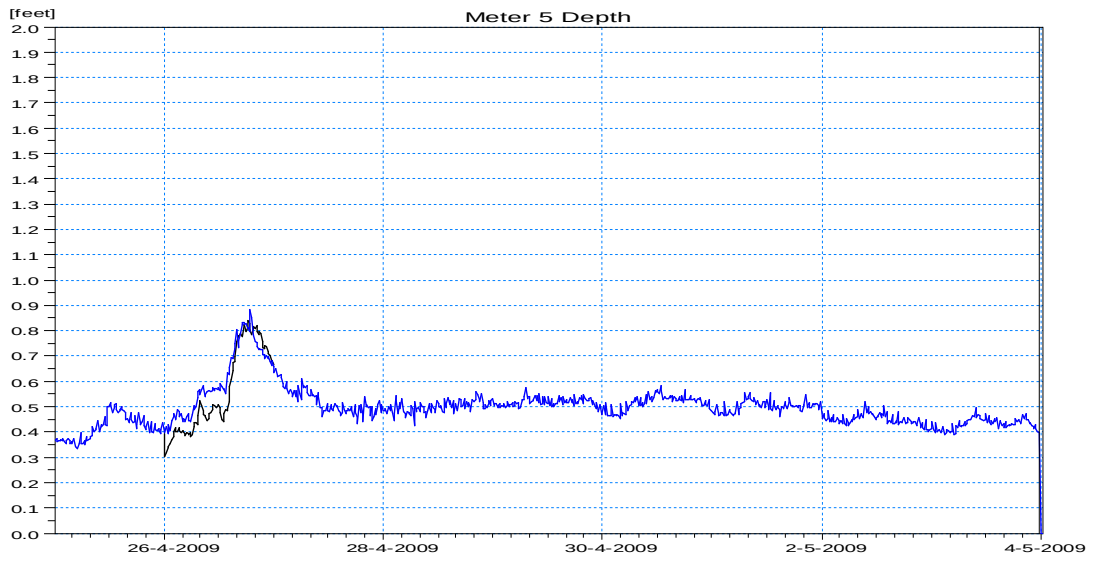
April 26th Storm Events


[feet]
Meter 2 Depth
2.2
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
00:00:00 25-4-2009
00:00:00 26-4-2009
00:00:00 27-4-2009
00:00:00 28-4-2009
00:00:00 29-4-2009
00:00:00 30-4-2009
00:00:00 1-5-2009
00:00:00 2-5-2009
00:00:00 3-5-2009
00:00:00 4-5-2009
DEPTH Meter
863 (3579 -> 3578) 228.10
External TS 1
Meter 2 Depth


[cfs]
Meter 2 Flow
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
00:00:00 25-4-2009
00:00:00 26-4-2009
00:00:00 27-4-2009
00:00:00 28-4-2009
00:00:00 29-4-2009
00:00:00 30-4-2009
00:00:00 1-5-2009
00:00:00 2-5-2009
00:00:00 3-5-2009
Link Discharge
863 (3579 -> 3578) 114.05
External TS 1
Meter 2

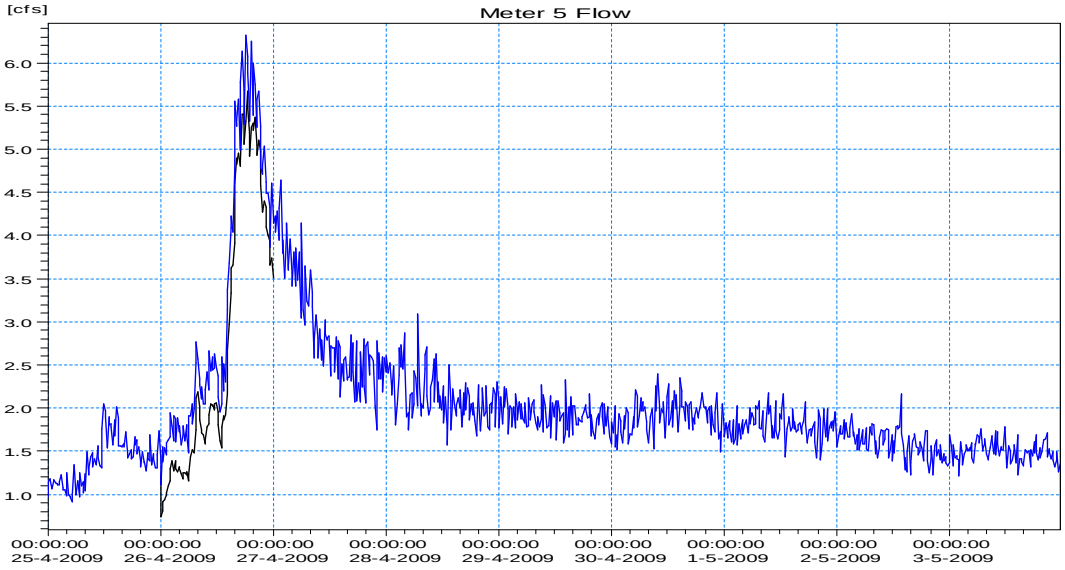

[feet]
Meter 4 Depth
2.0
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
00:00:00 25-4-2009
00:00:00 26-4-2009
00:00:00 27-4-2009
00:00:00 28-4-2009
00:00:00 29-4-2009
00:00:00 30-4-2009
00:00:00 1-5-2009
00:00:00 2-5-2009
00:00:00 3-5-2009
00:00:00 4-5-2009
DEPTH Meter
867 (2726 -> 1116) 187.32
External TS 1
Meter 4 Depth


[cfs]
Meter 4 Flow
2.6
2.5
2.4
2.3
2.2
2.1
2.0
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
00:00:00 25-4-2009
00:00:00 26-4-2009
00:00:00 27-4-2009
00:00:00 28-4-2009
00:00:00 29-4-2009
00:00:00 30-4-2009
00:00:00 1-5-2009
00:00:00 2-5-2009
00:00:00 3-5-2009
Link Discharge
867 (2726 -> 1116) 93.66
External TS 1
Meter 4



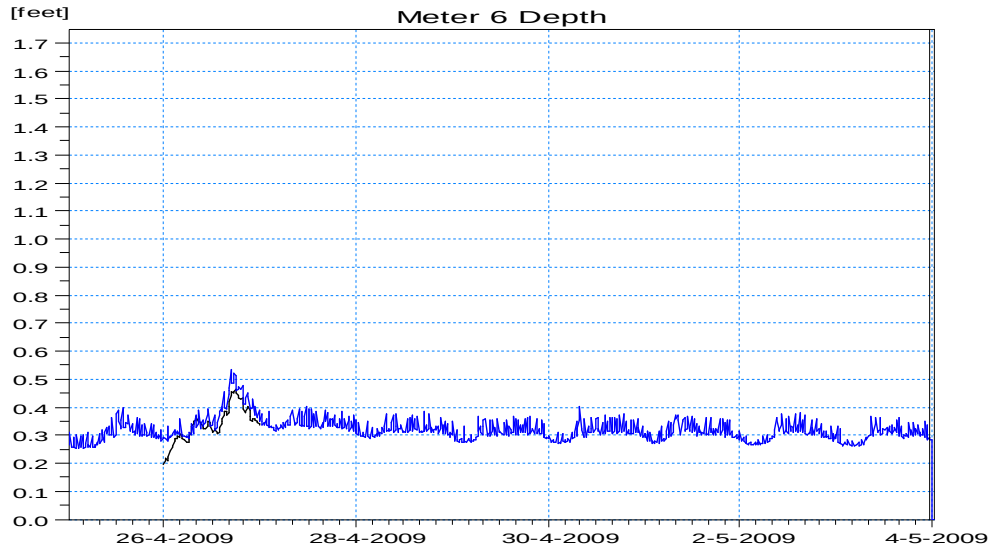
DEPTH Meter
592 (1110 -> 1128) 247.52

External TS 1
Meter 5 Depth



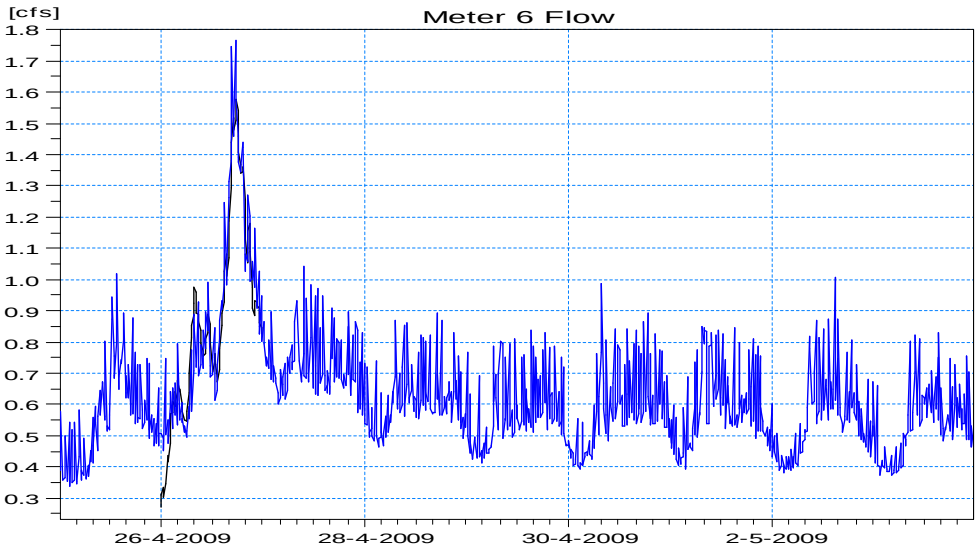
Link Discharge
592 (1110 -> 1128) 123.76

External TS 1
Meter 5



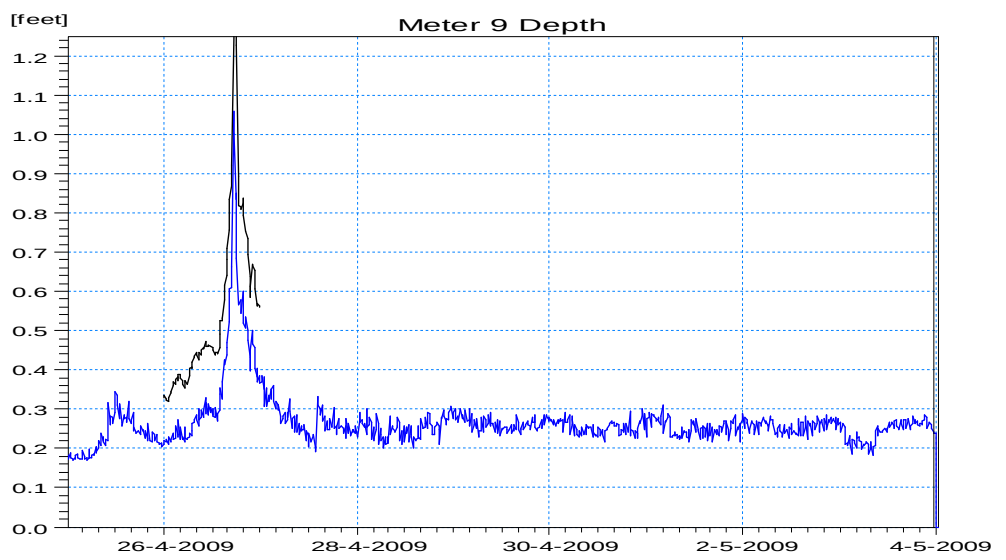
DEPTH Meter
— 375 (1791 -> 5632) 319.50

External TS 1
— Meter 6 Depth



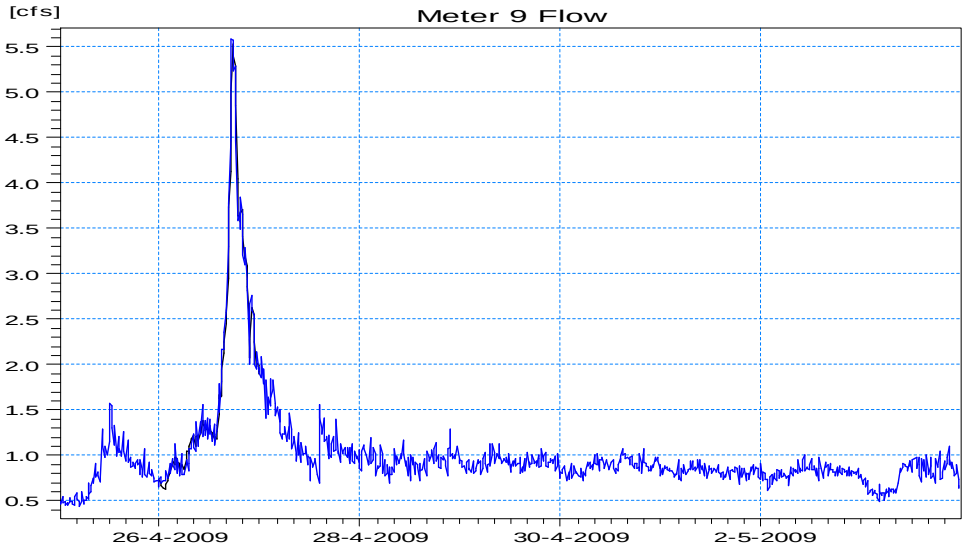
Link Discharge
— 375 (1791 -> 5632) 79.88

External TS 1
— Meter 6



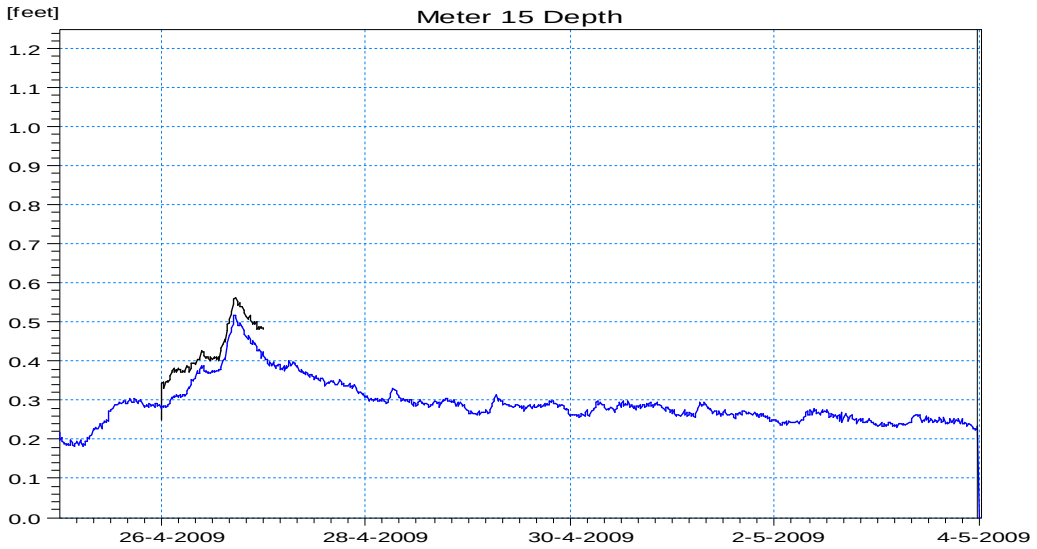
DEPTH Meter
506 (3376 -> 3374) 258.22

External TS 1
Meter 9 Depth



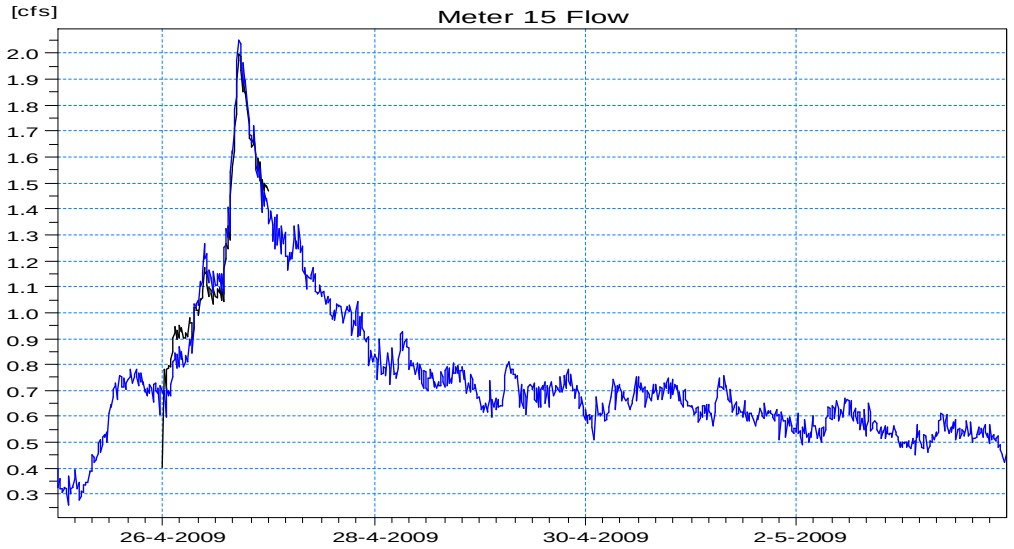
Link Discharge
506 (3376 -> 3374) 193.67

External TS 1
Meter 9



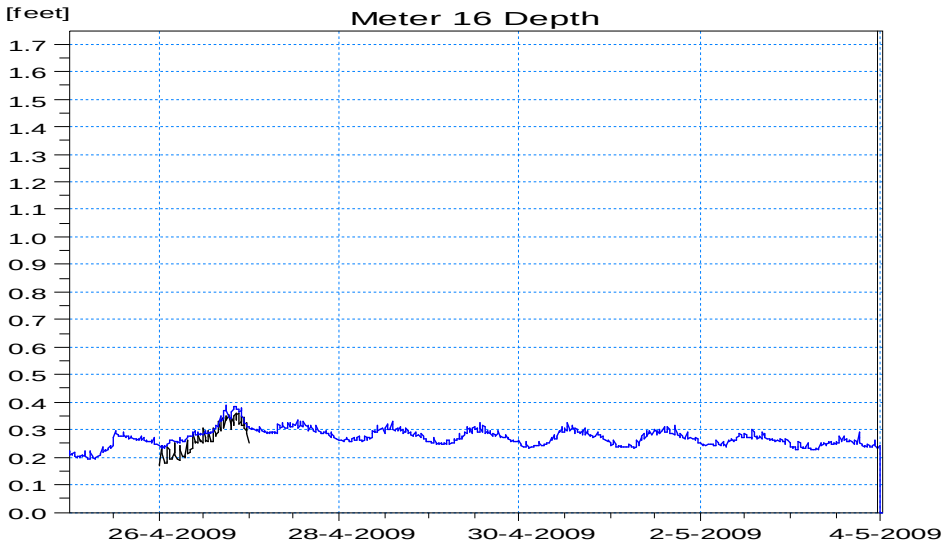
DEPTH Meter
— 845 (1508 -> 4404) 658.88

External TS 1
— Meter 15 Depth



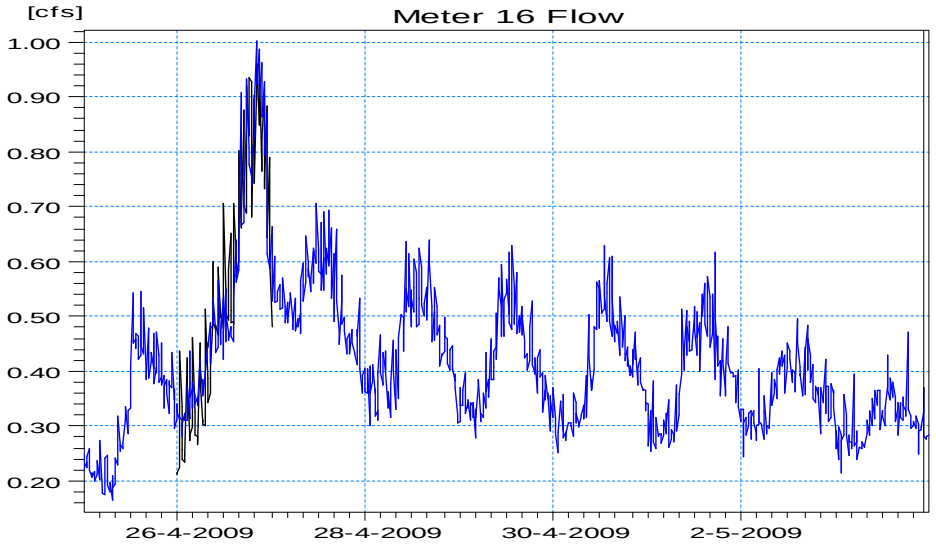
Link Discharge
— 845 (1508 -> 4404) 576.52

External TS 1
— Meter 15



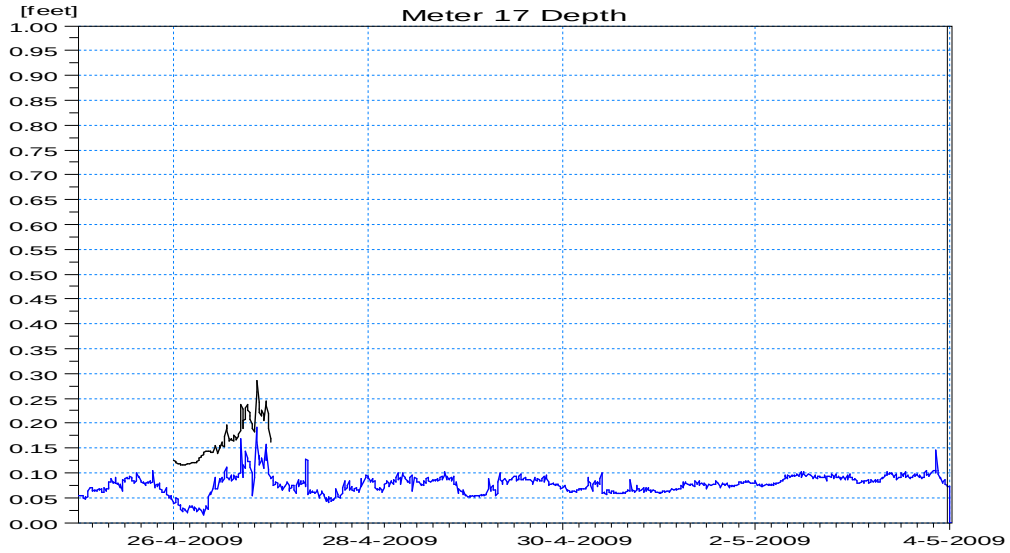
DEPTH Meter
— 842 (1594 -> 1593) 297.30

External TS 1
— Meter 16 Depth



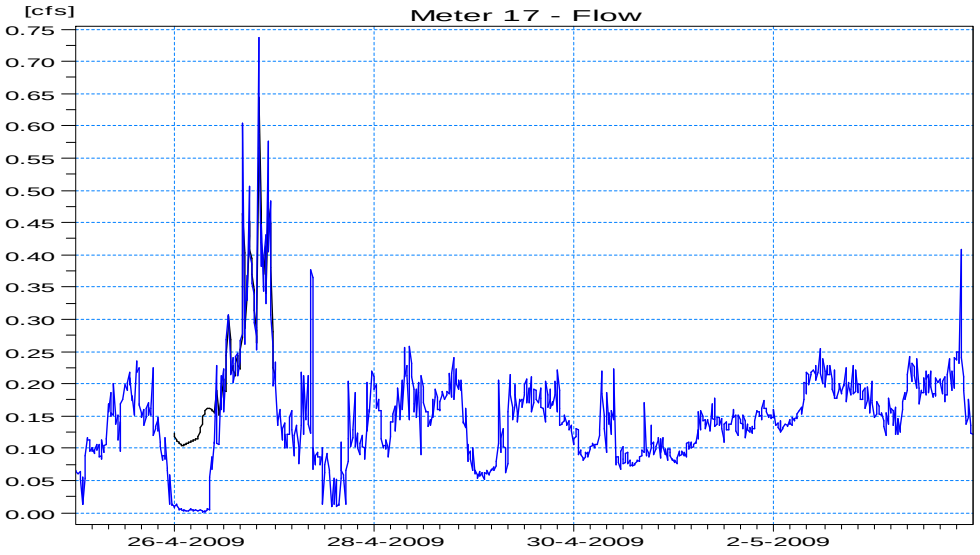
Link Discharge
— 842 (1594 -> 1593) 222.97

External TS 1
— Meter 16



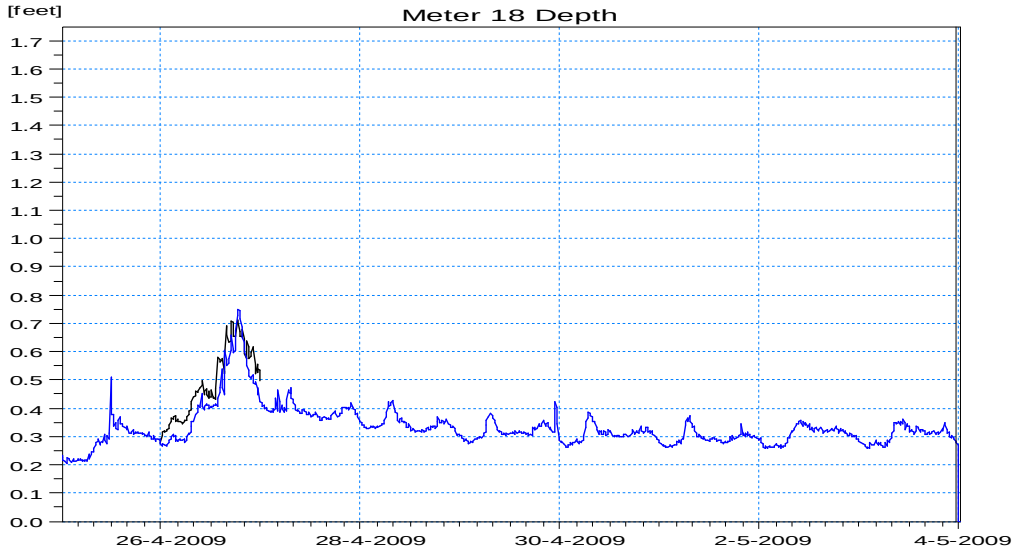
DEPTH Meter
— 632 (1456 -> 1385) 332.57

External TS 1
— Meter 17 Depth



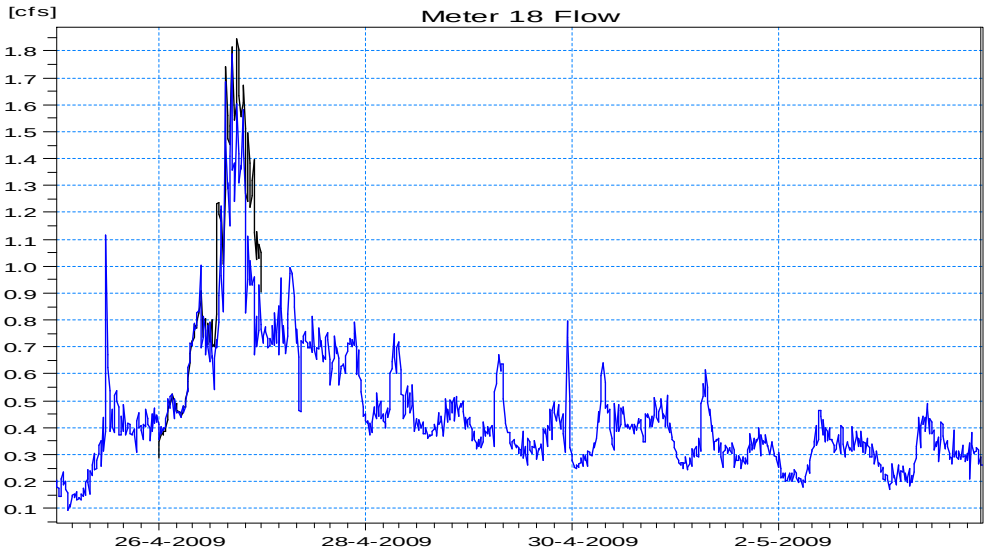
Link Discharge
— 632 (1456 -> 1385) 249.42

External TS 1
— Meter 17



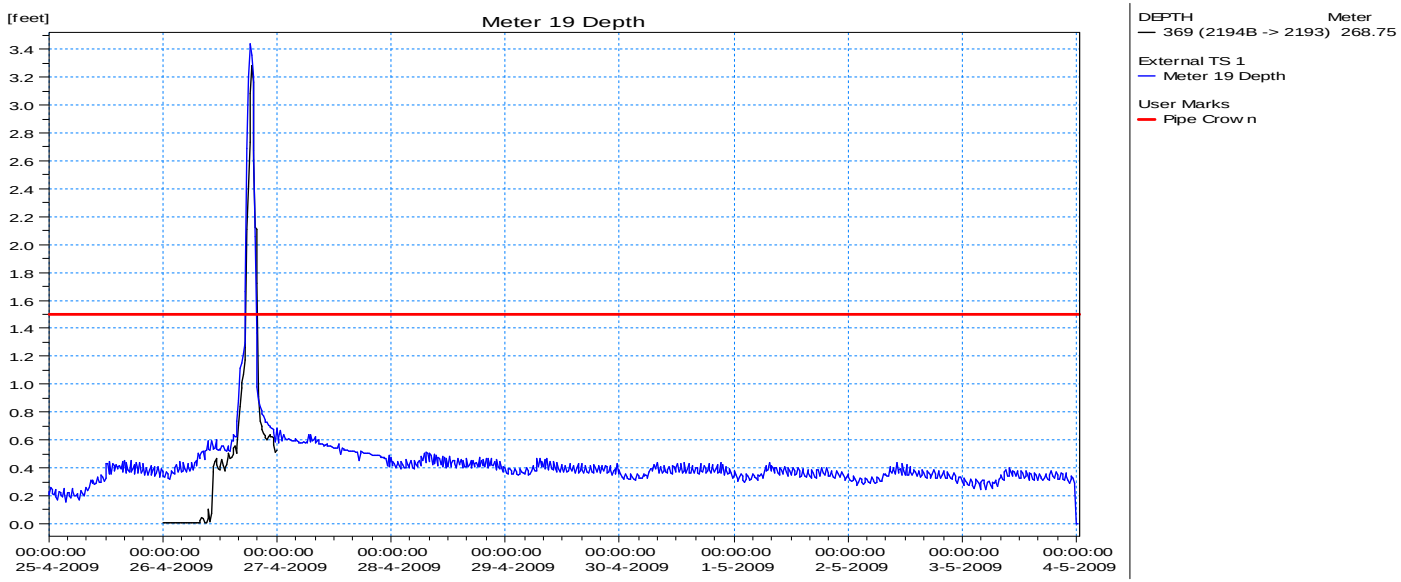
DEPTH Meter
207 (1599 -> 1600) 296.50

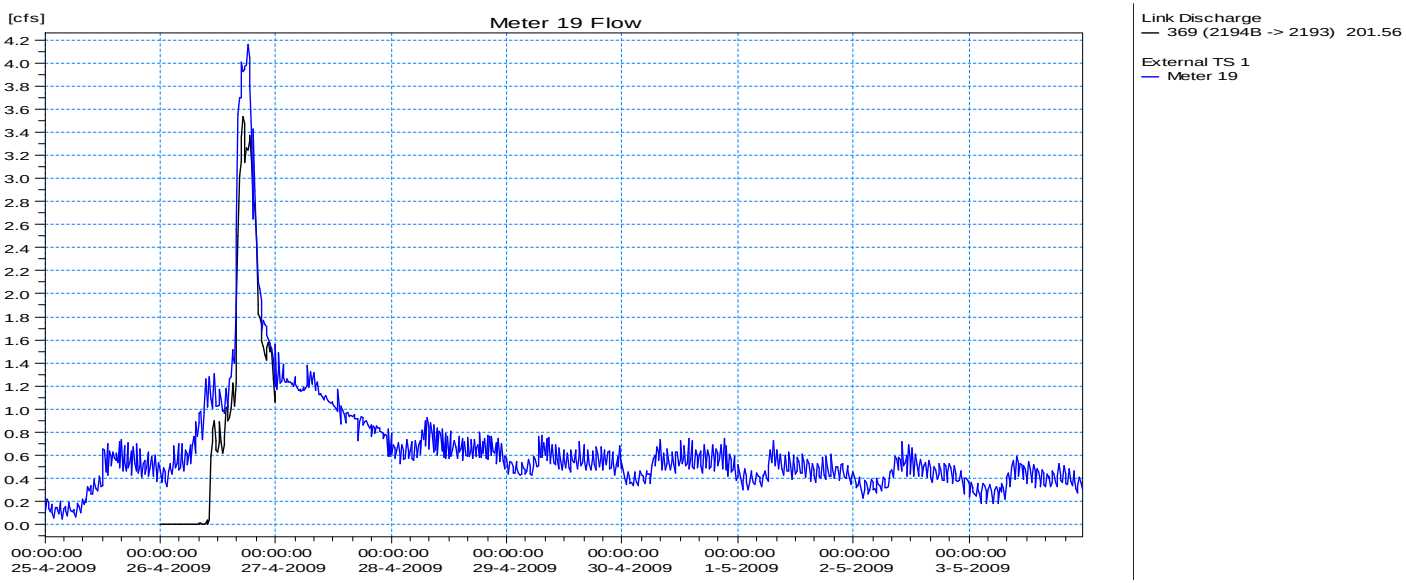
External TS 1
Meter 18 Depth

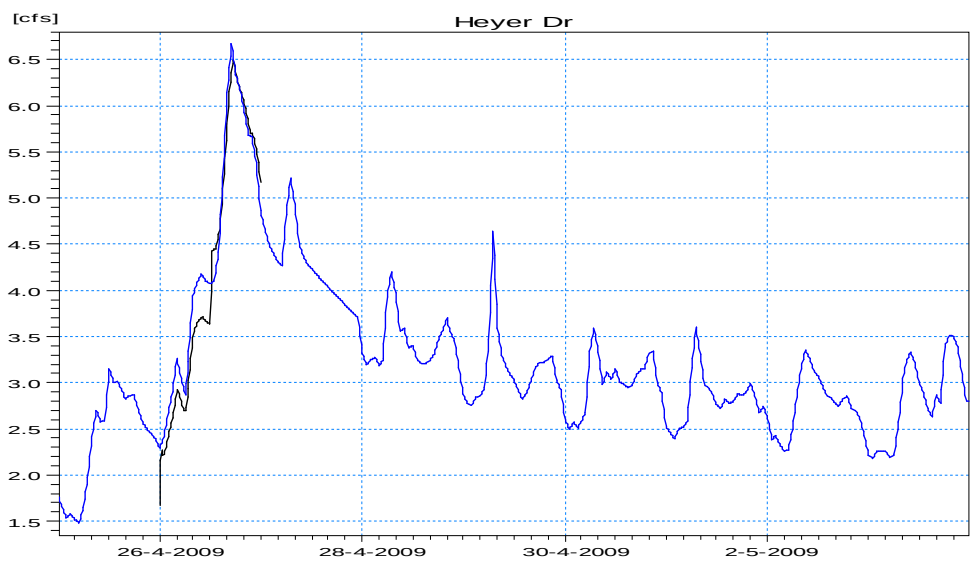


Link Discharge
207 (1599 -> 1600) 222.37

External TS 1
Meter 18

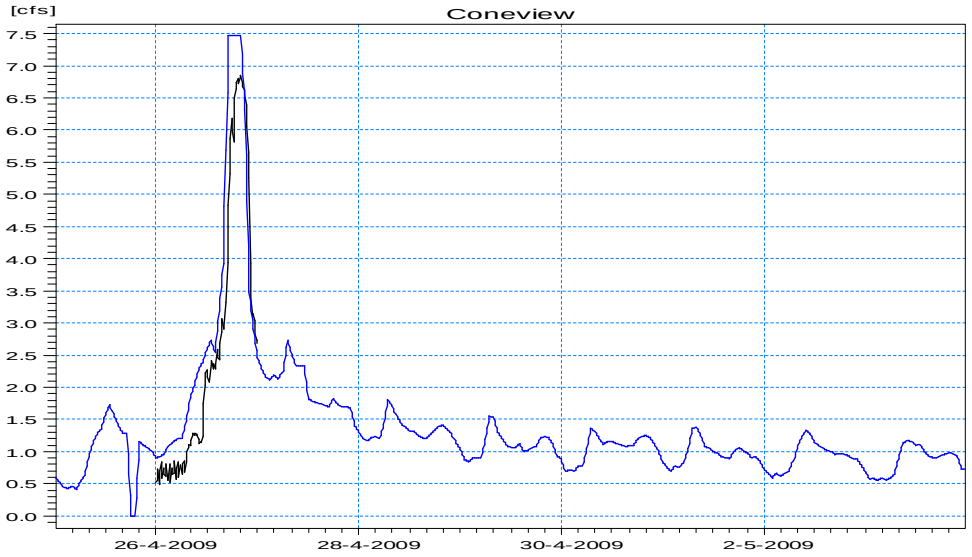

[feet]
Meter 19 Depth
3.4
3.2
3.0
2.8
2.6
2.4
2.2
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
00:00:00 25-4-2009
00:00:00 26-4-2009
00:00:00 27-4-2009
00:00:00 28-4-2009
00:00:00 29-4-2009
00:00:00 30-4-2009
00:00:00 1-5-2009
00:00:00 2-5-2009
00:00:00 3-5-2009
00:00:00 4-5-2009
DEPTH Meter
369 (2194B -> 2193) 268.75
External TS 1
Meter 19 Depth
User Marks
Pipe Crow n


[cfs]
Meter 19 Flow
4.2
4.0
3.8
3.6
3.4
3.2
3.0
2.8
2.6
2.4
2.2
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
00:00:00 25-4-2009
00:00:00 26-4-2009
00:00:00 27-4-2009
00:00:00 28-4-2009
00:00:00 29-4-2009
00:00:00 30-4-2009
00:00:00 1-5-2009
00:00:00 2-5-2009
00:00:00 3-5-2009
Link Discharge
369 (2194B -> 2193) 201.56
External TS 1
Meter 19



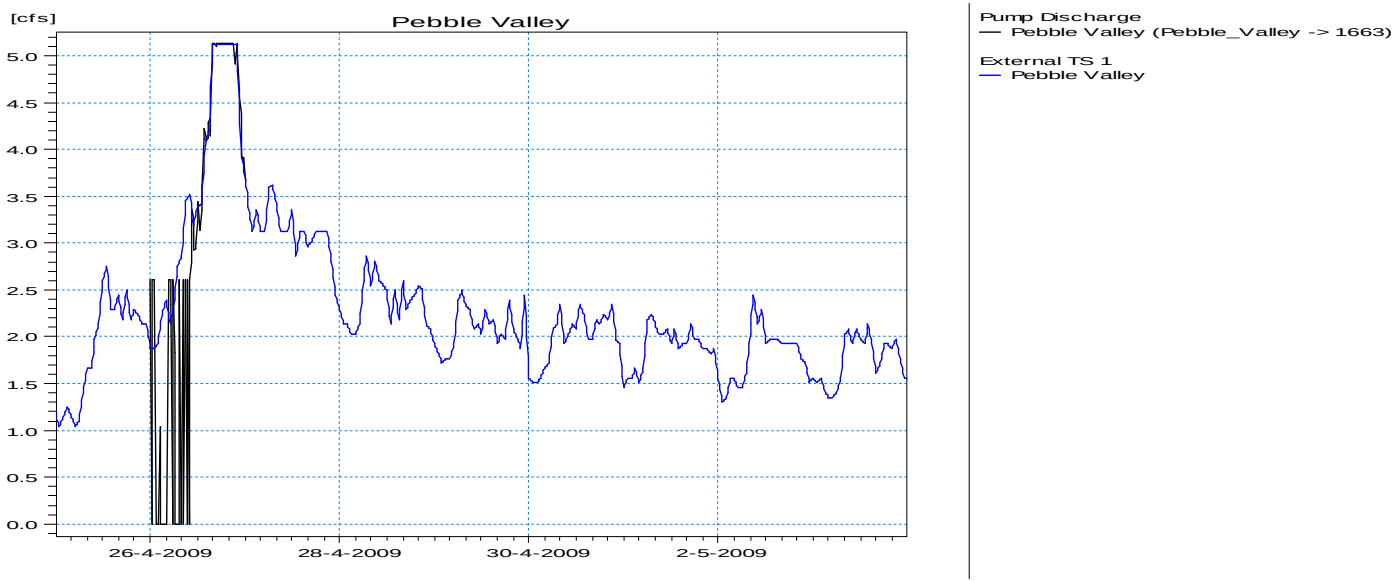
Link Discharge
106 (5546 -> Heyer_Dr) 19.34

External TS 1
Meter 30

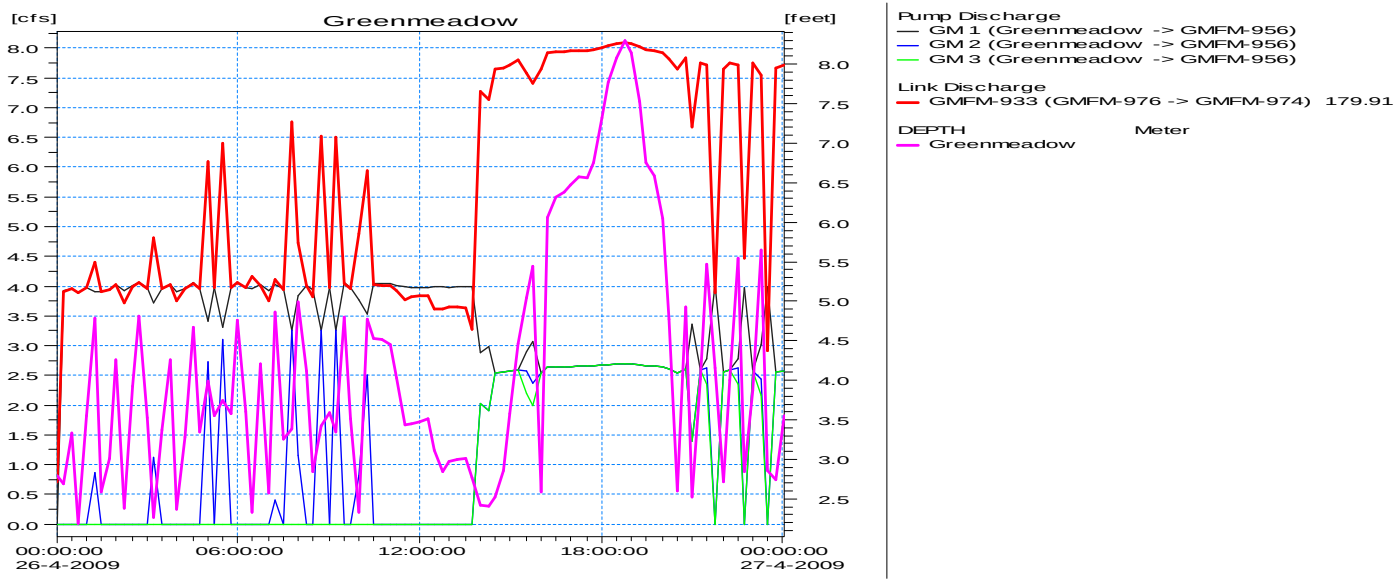


Link Discharge
605 (2384 -> Coneview) 128.73

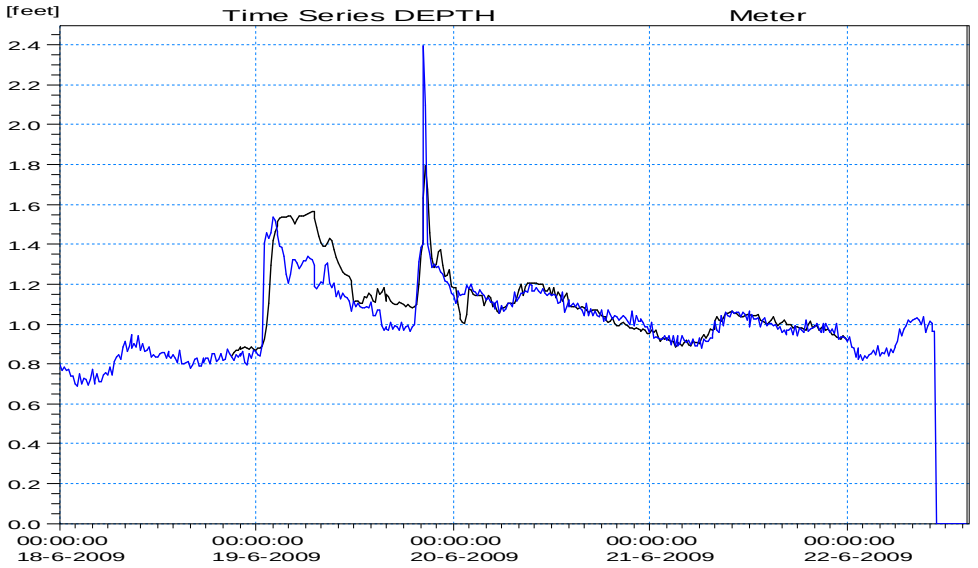
External TS 1
Coneview PS


[cfs]
Pebble Valley
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
26-4-2009
28-4-2009
30-4-2009
2-5-2009
Pump Discharge
Pebble Valley (Pebble_Valley -> 1663)
External TS 1
Pebble Valley

.

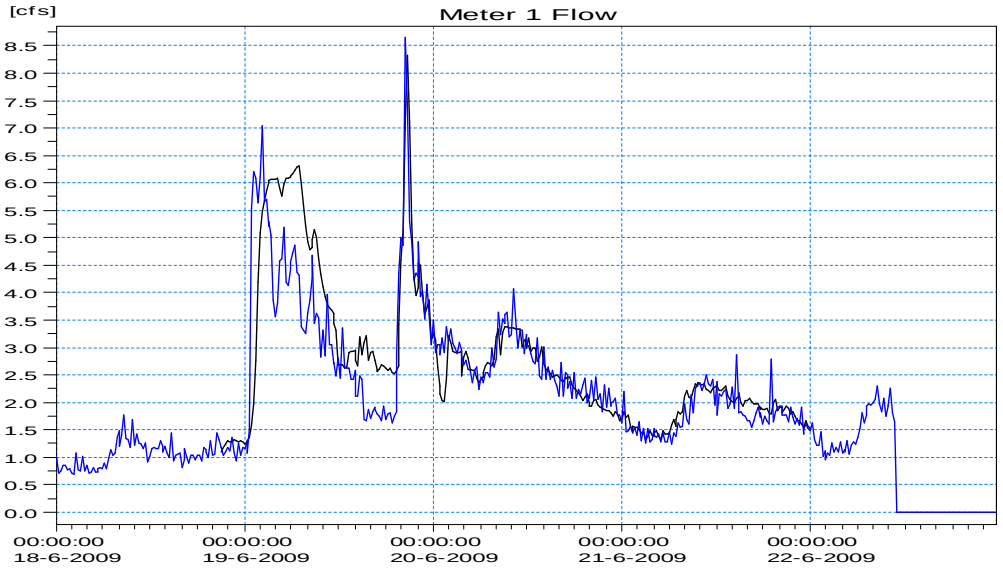

[cfs]
Greenmeadow
[feet]
8.0
7.5
7.0
6.5
6.0
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
00:00:00
26-4-2009
06:00:00
12:00:00
18:00:00
00:00:00
27-4-2009
Pump Discharge
GM 1 (Greenmeadow -> GMFM-956)
GM 2 (Greenmeadow -> GMFM-956)
GM 3 (Greenmeadow -> GMFM-956)
Link Discharge
GMFM-933 (GMFM-976 -> GMFM-974) 179.91
DEPTH
Meter
Greenmeadow

June 19th Storm Events



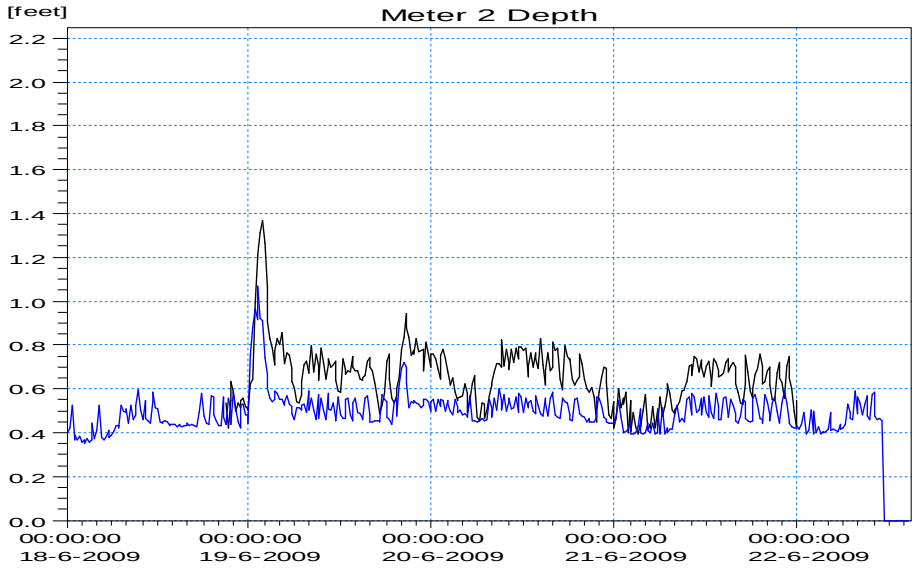
DEPTH Meter
— 4141

External TS 1
— Meter 1 Depth



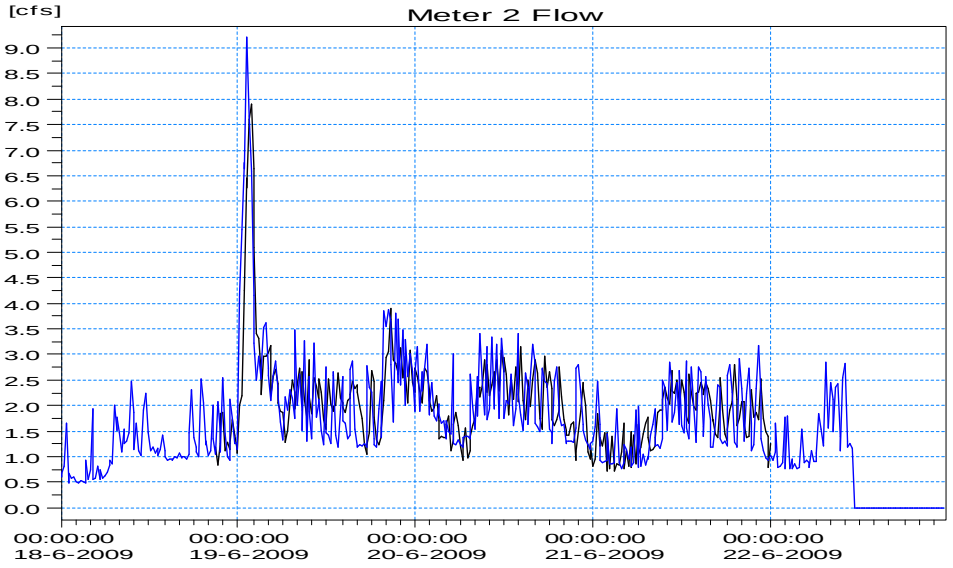
Link Discharge
— 388 (4142 -> 4141) 147.28

External TS 1
— Meter 1



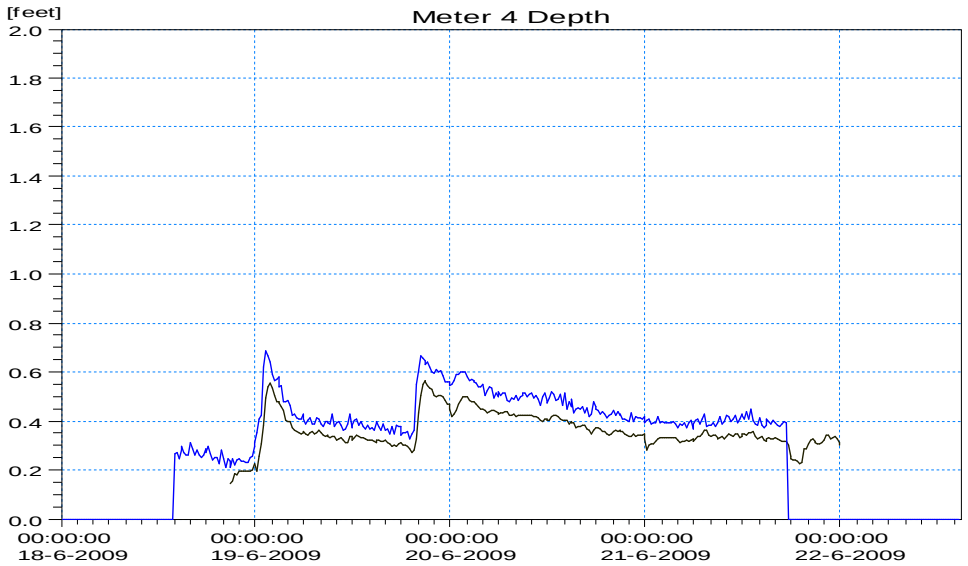
DEPTH Meter
— 863 (3579 -> 3578) 228.10

External TS 1
— Meter 2 Depth



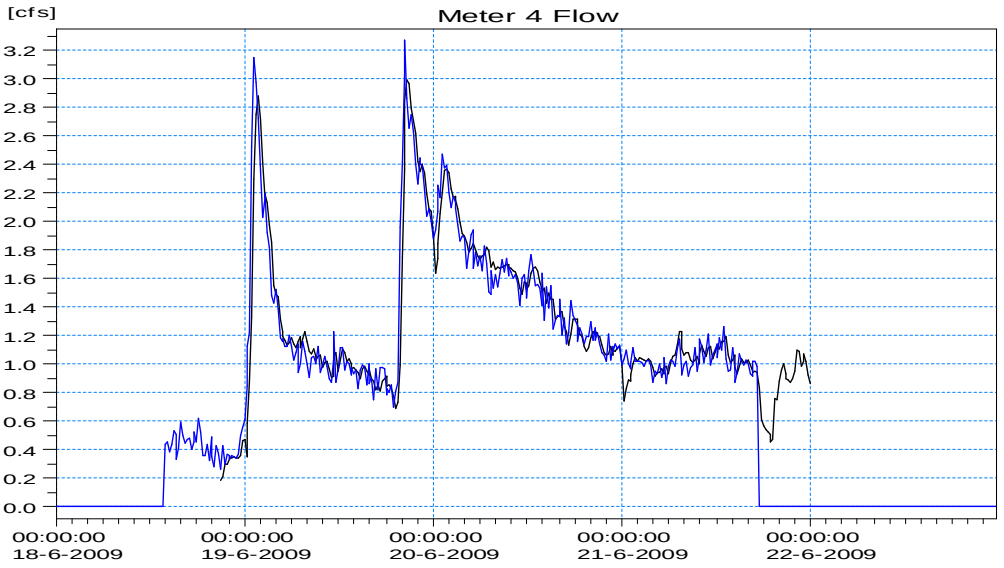
Link Discharge
— 863 (3579 -> 3578) 114.05

External TS 1
— Meter 2



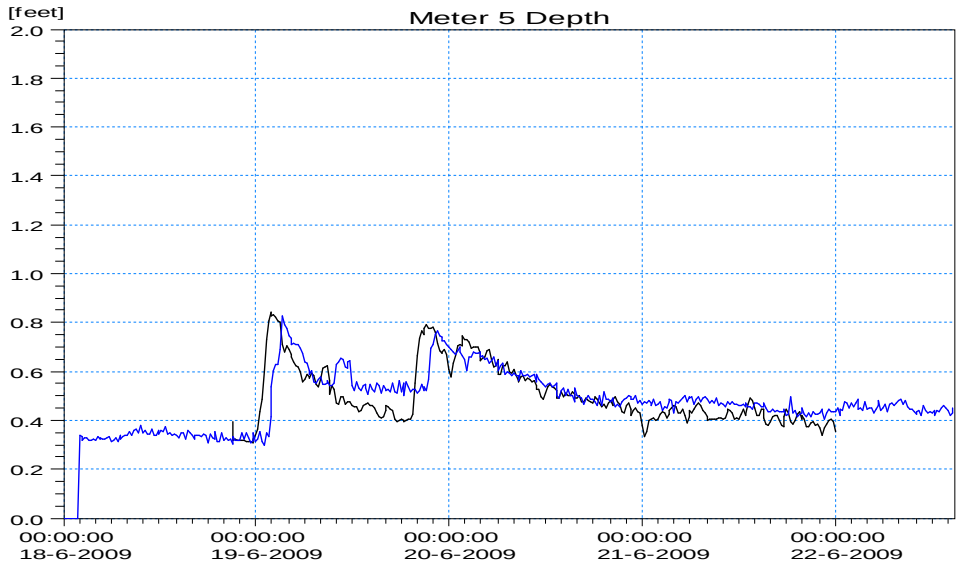
DEPTH Meter
343 (1116 -> 5771) 166.64

External TS 1
Meter 4 Depth



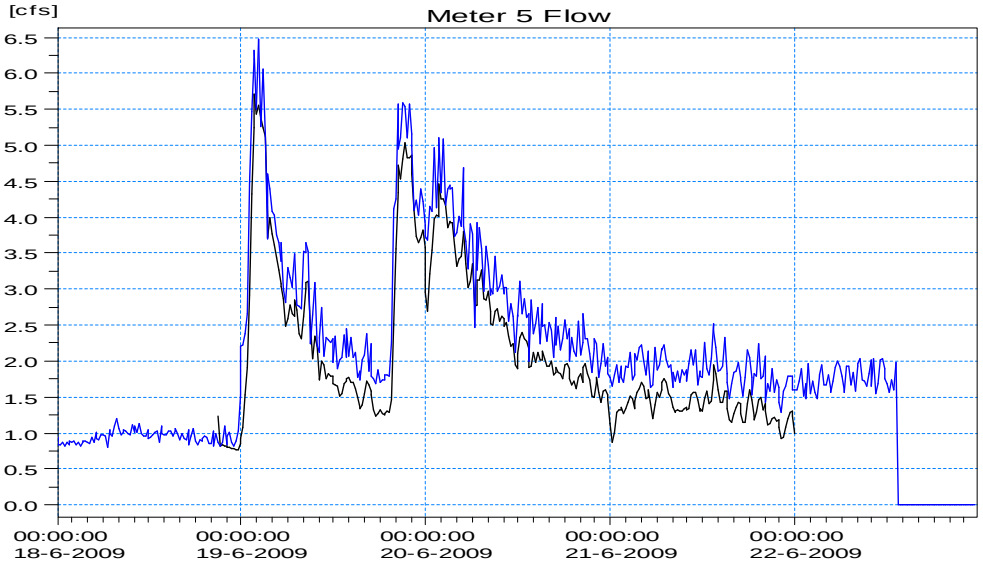
Link Discharge
869 (5771 -> 5853) 75.22

External TS 1
Meter 4



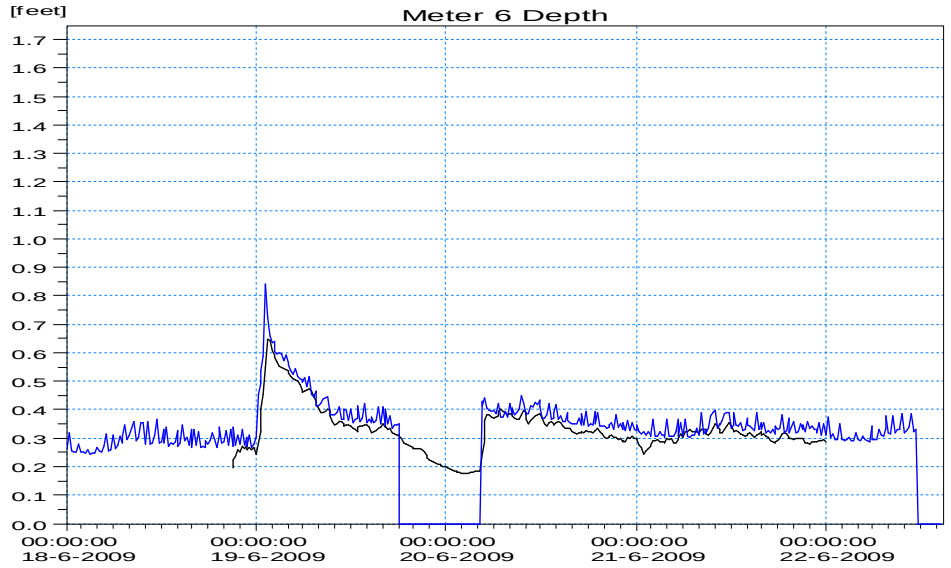
DEPTH Meter
592 (1110 -> 1128) 247.52

External TS 1
Meter 5 Depth



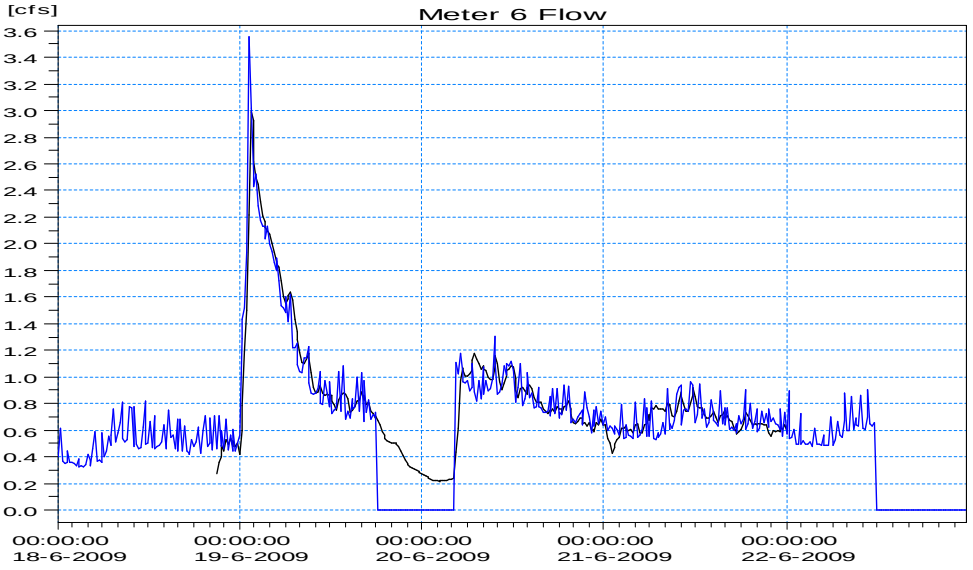
Link Discharge
592 (1110 -> 1128) 123.76

External TS 1
Meter 5



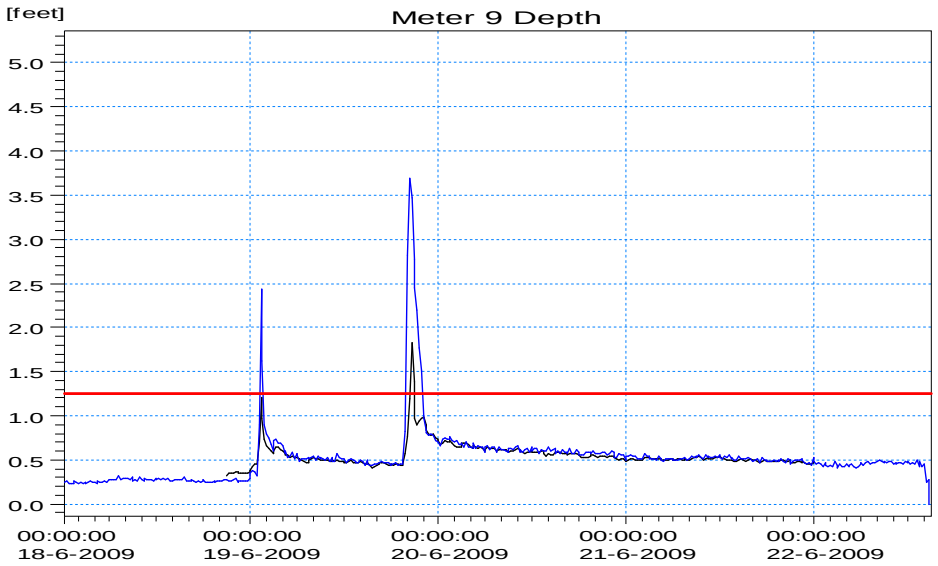
DEPTH Meter
— 375 (1791 -> 5632) 319.50

External TS 1
— Meter 6 Depth



Link Discharge
— 375 (1791 -> 5632) 239.63

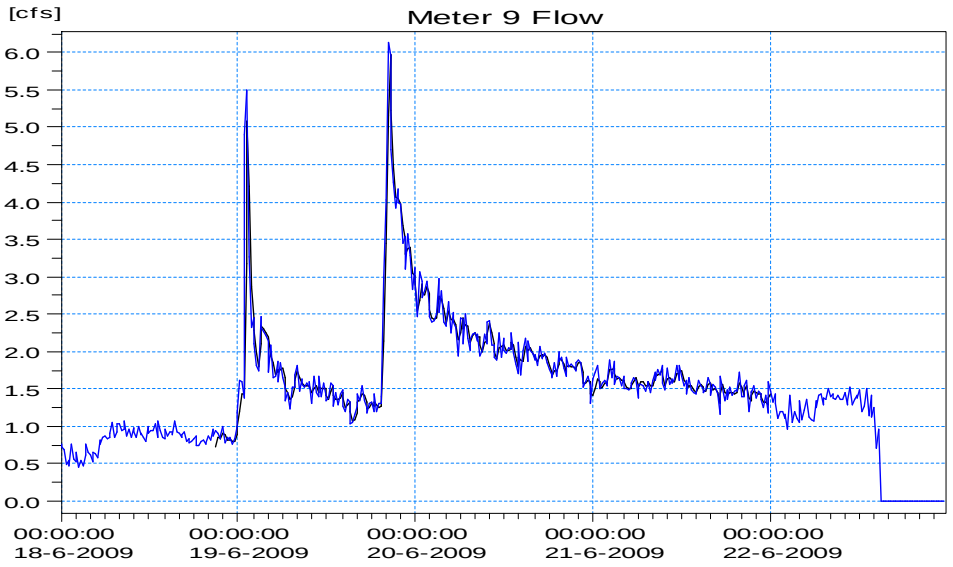
External TS 1
— Meter 6



DEPTH Meter
— 506 (3376 -> 3374) 258.22

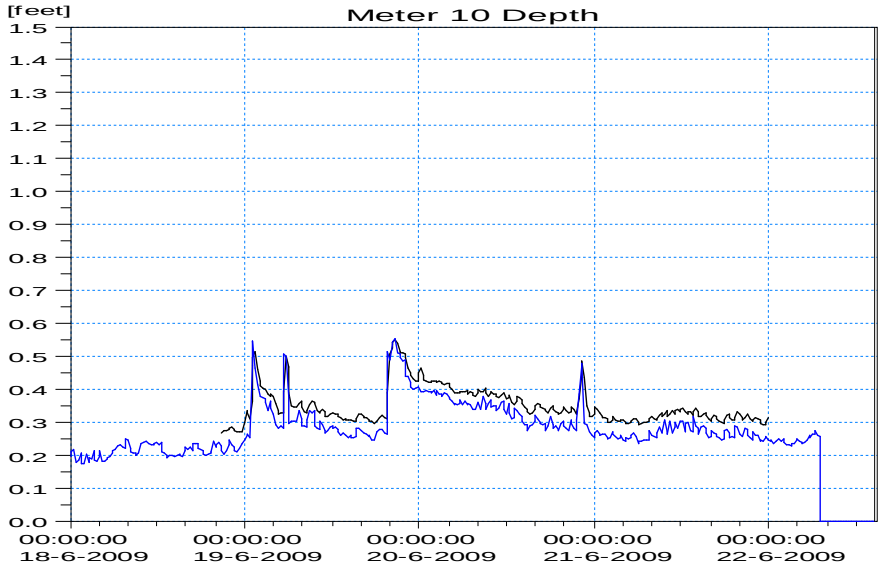
External TS 1
— Meter 9 Depth

User Marks
— Crow n



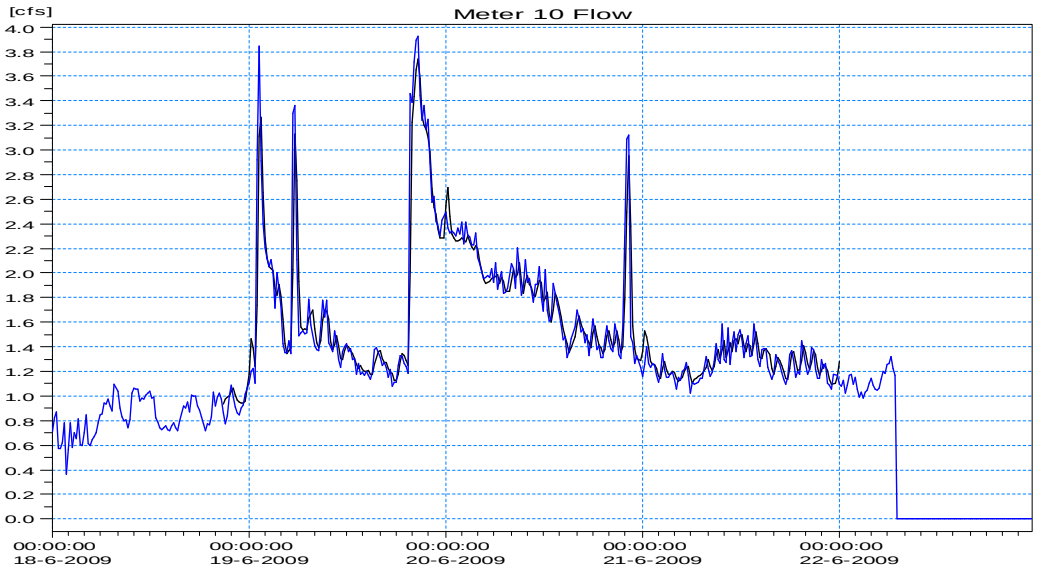
Link Discharge
— 506 (3376 -> 3374) 193.67

External TS 1
— Meter 9



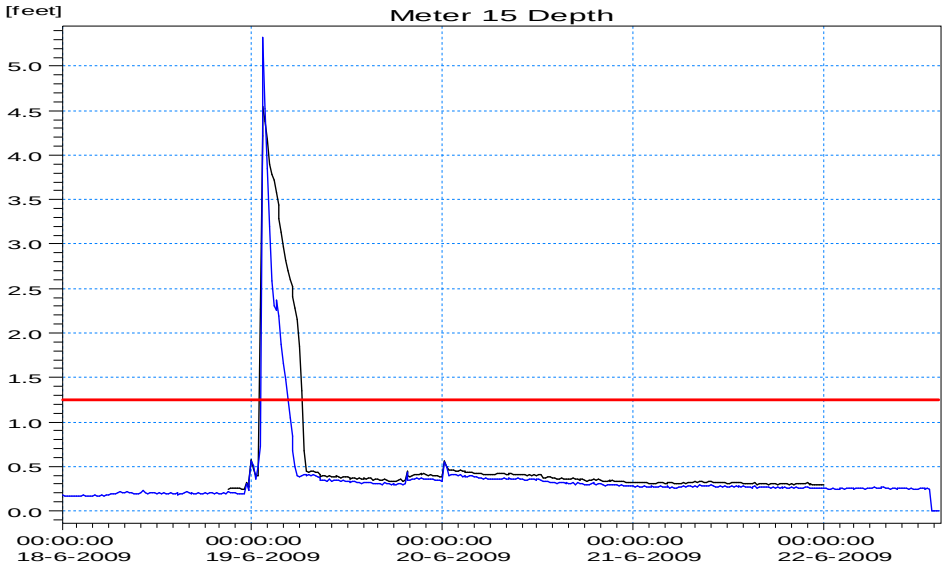
DEPTH Meter
— 922 (4917 -> 4919) 428.77

External TS 1
— Meter 10 Depth



Link Discharge
— 922 (4917 -> 4919) 357.31

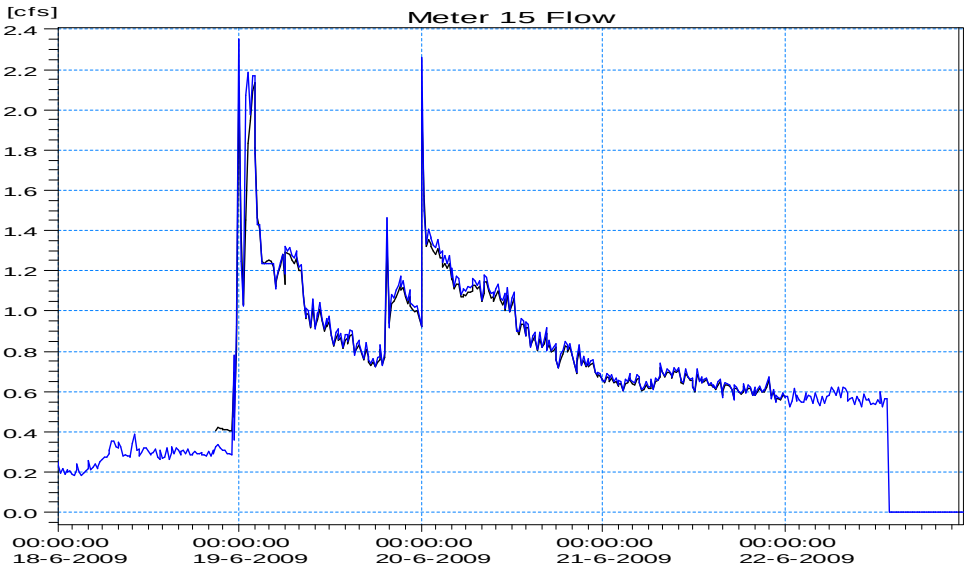
External TS 1
— Meter 10



DEPTH Meter
845 (1508 -> 4404) 658.88

External TS 1
Meter 15 Depth

User Marks
Crow n



Link Discharge
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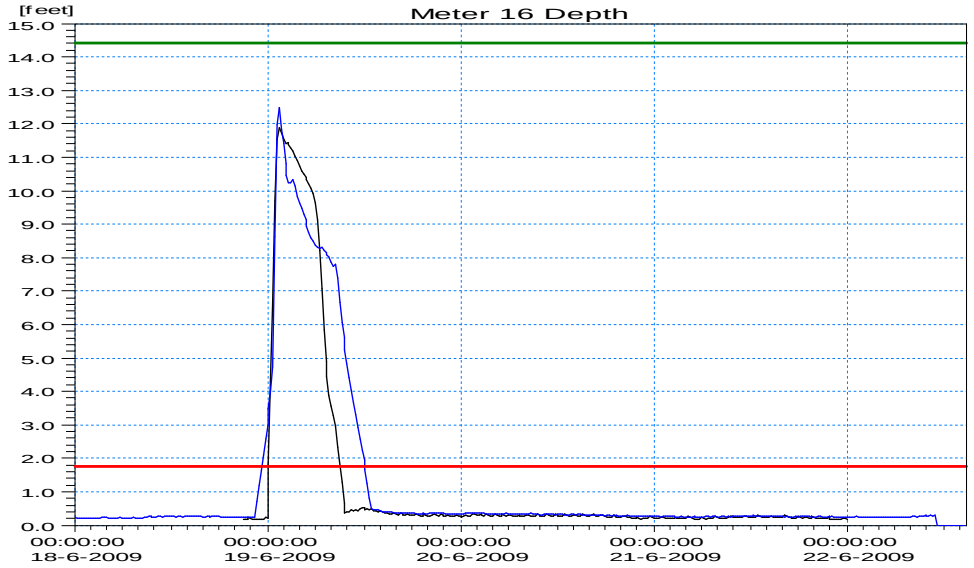
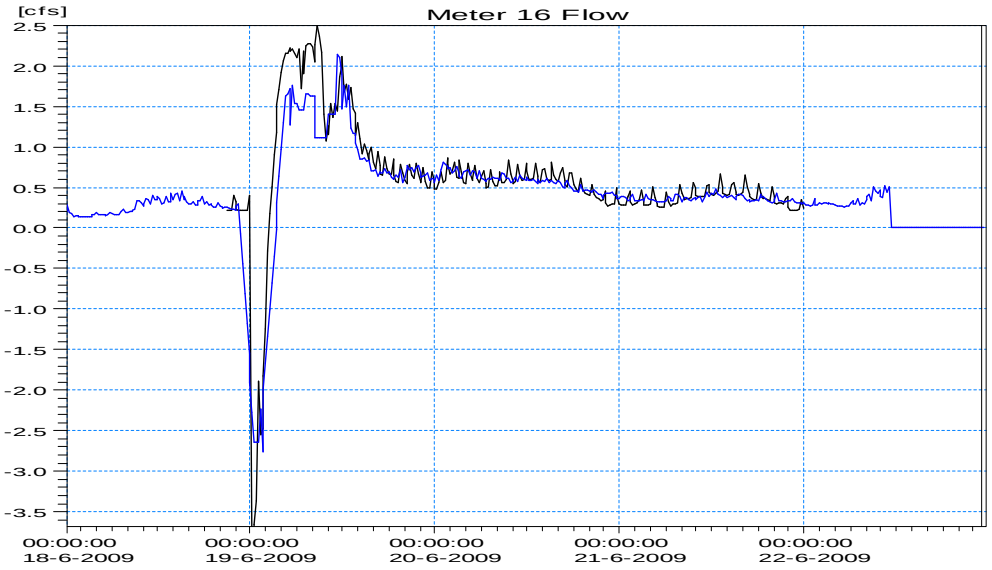
External TS 1
Meter 15



DEPTH Meter
842 (1594 -> 1593) 297.30

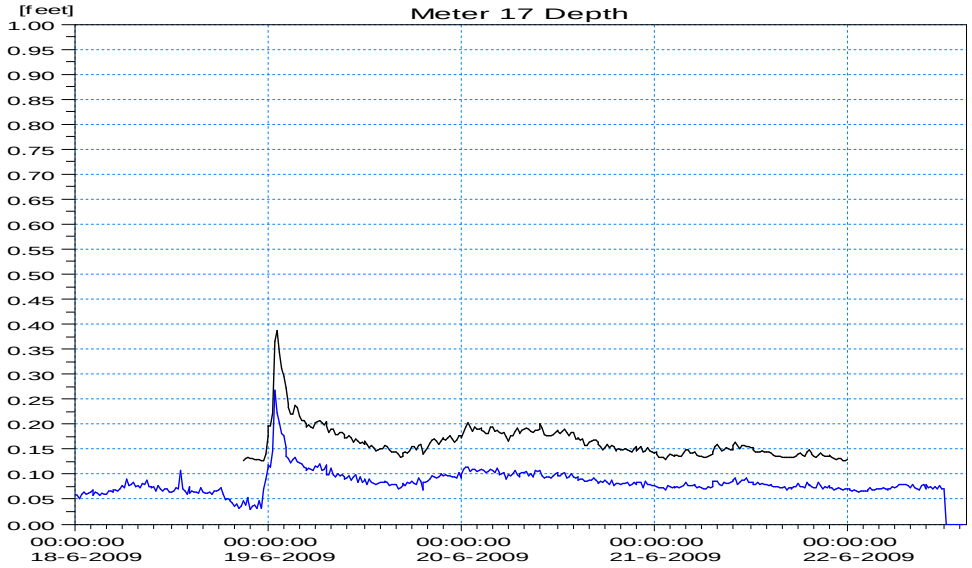
External TS 1
Meter 16 Depth

User Marks
Crow n
Grade



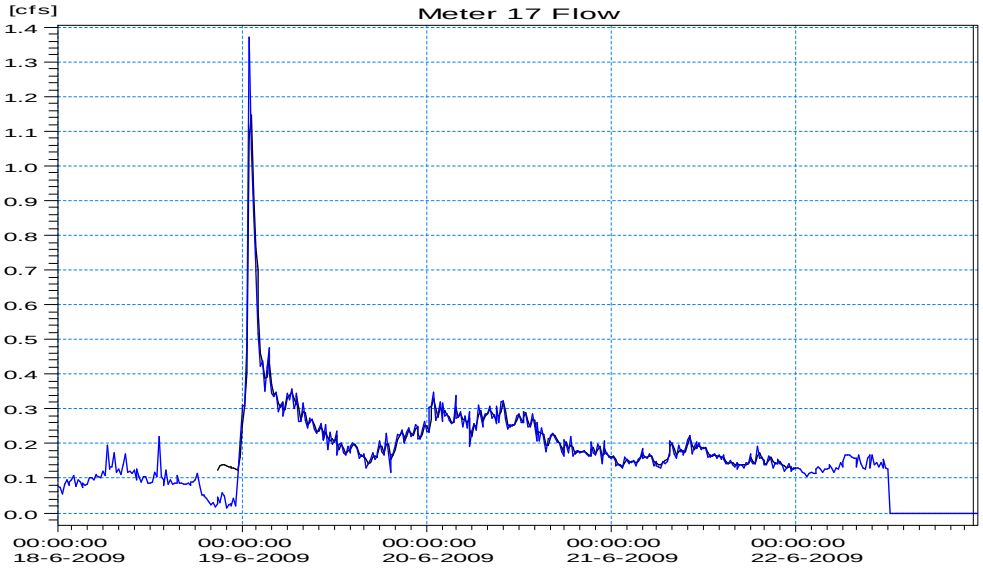
Link Discharge
842 (1594 -> 1593) 222.97

External TS 1
Meter 16



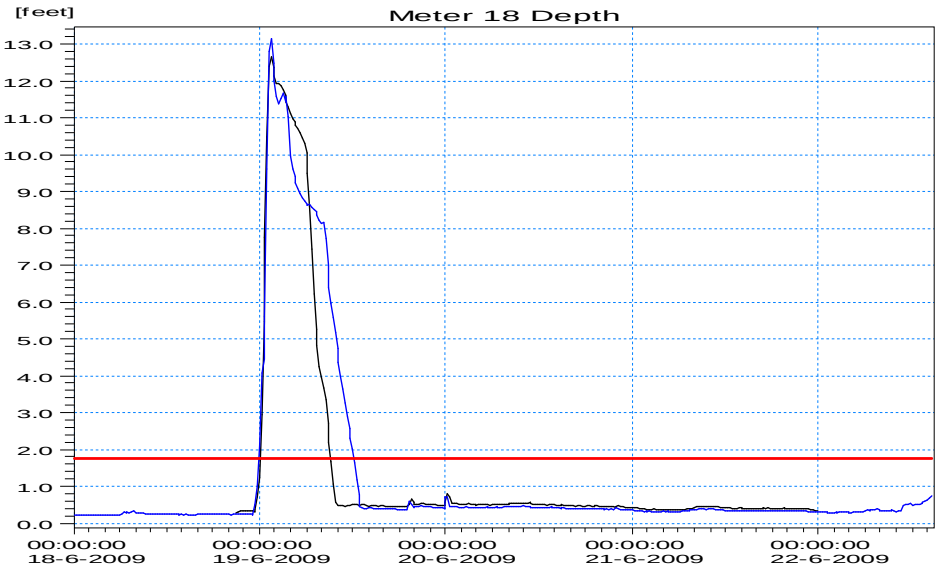
DEPTH Meter
632 (1456 -> 1385) 332.57

External TS 1
Meter 17 Depth



Link Discharge
632 (1456 -> 1385) 249.42

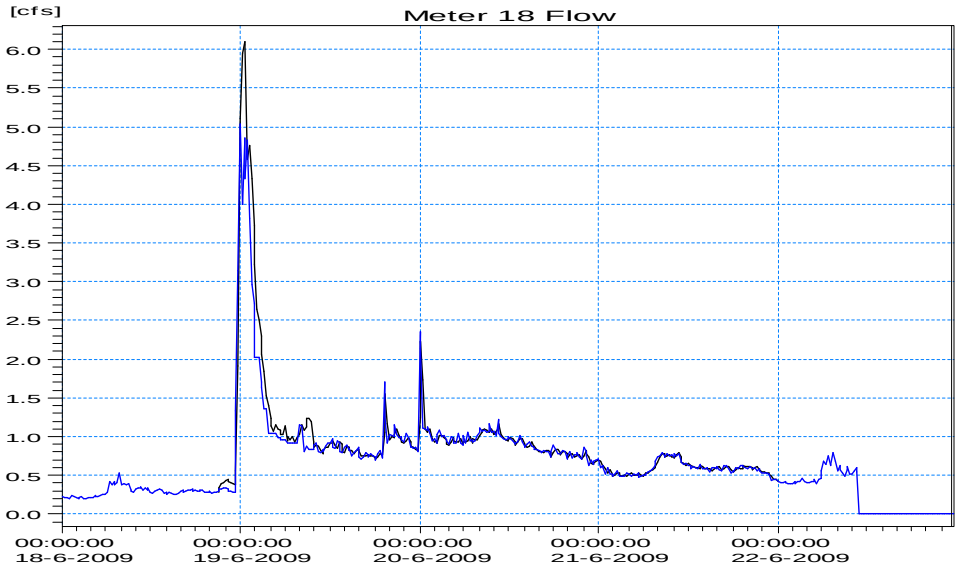
External TS 1
Meter 17



DEPTH Meter
207 (1599 -> 1600) 296.50

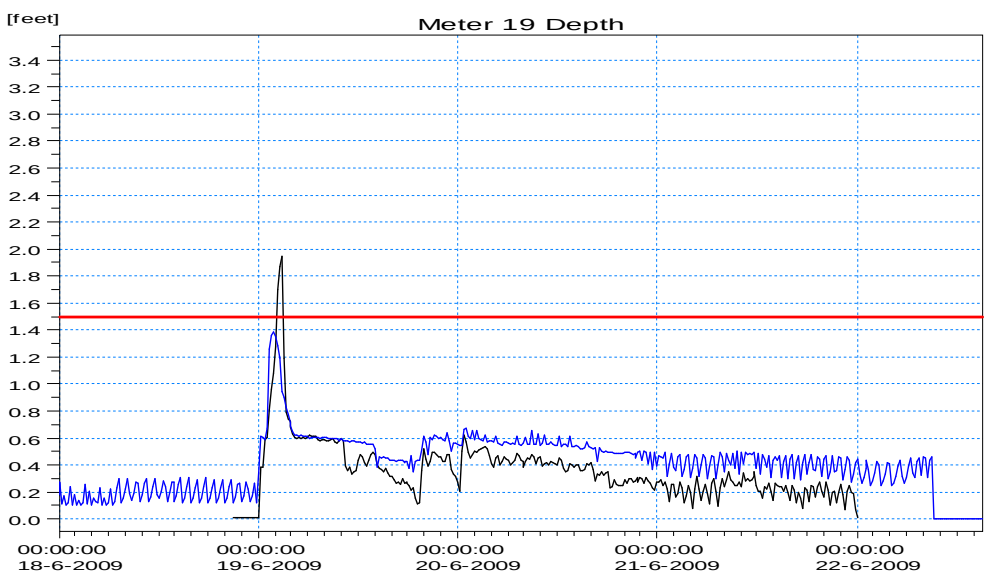
External TS 1
Meter 18 Depth

User Marks
Crown



Link Discharge
207 (1599 -> 1600) 222.37

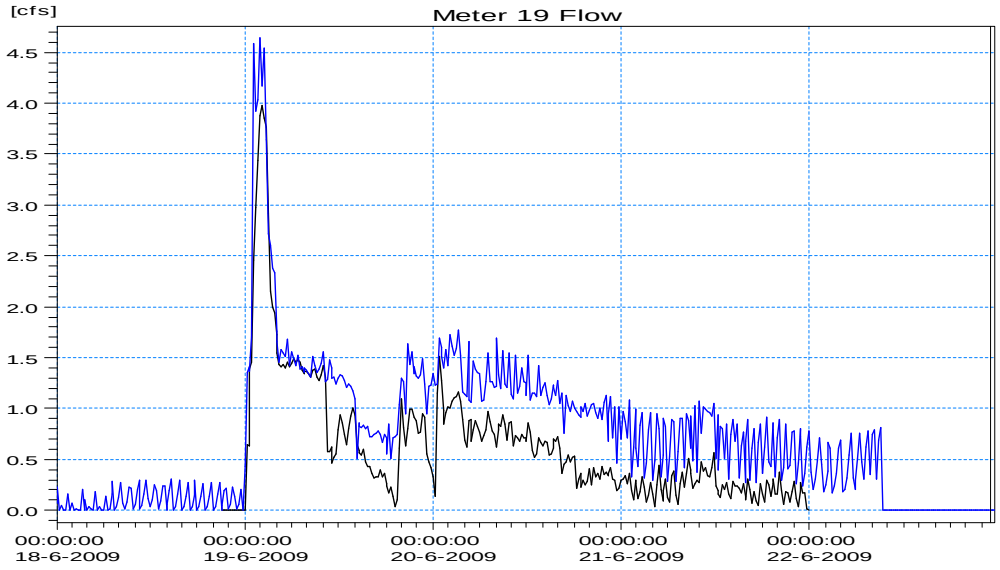
External TS 1
Meter 18



DEPTH Meter
369 (2194B -> 2193) 268.75

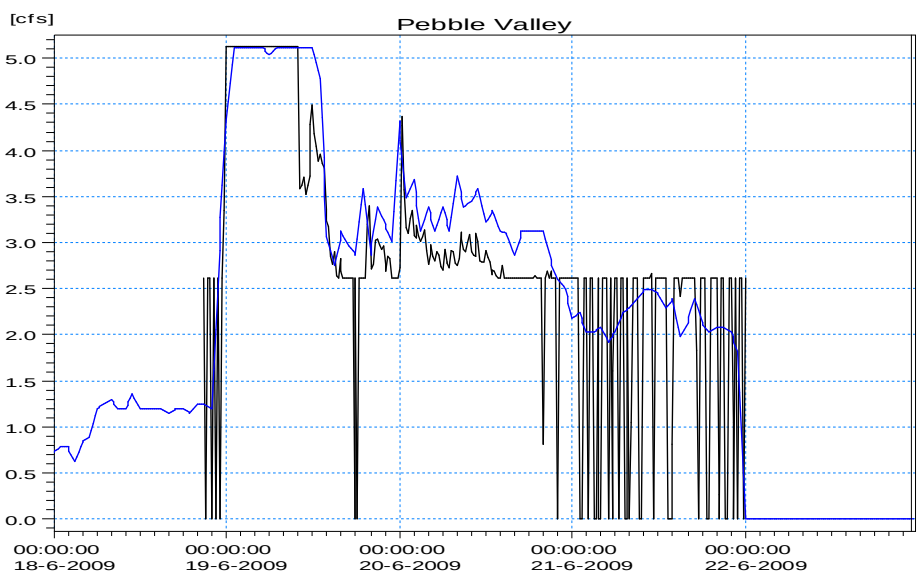
External TS 1
Meter 19 Depth

User Marks
Crow n



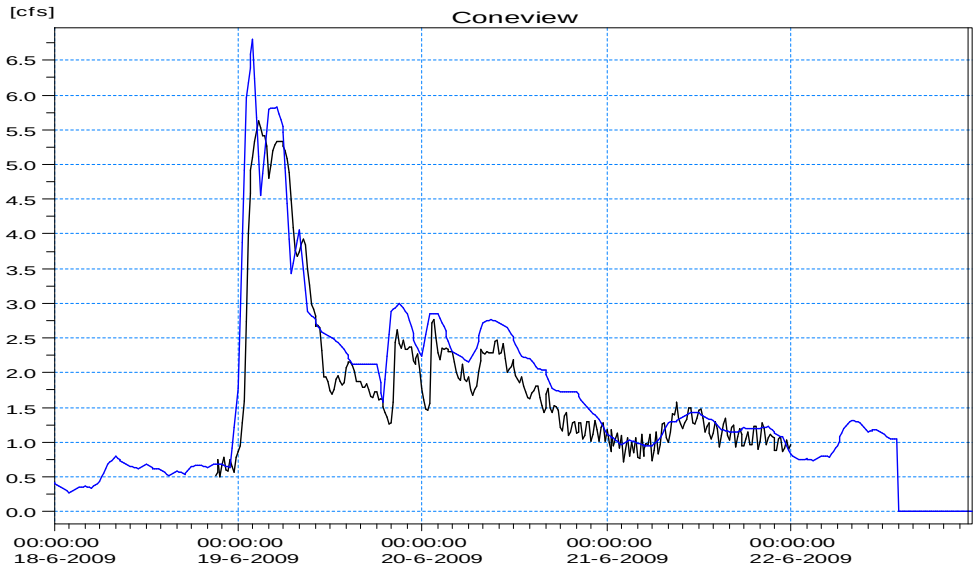
Link Discharge
369 (2194B -> 2193) 201.56

External TS 1
Meter 19



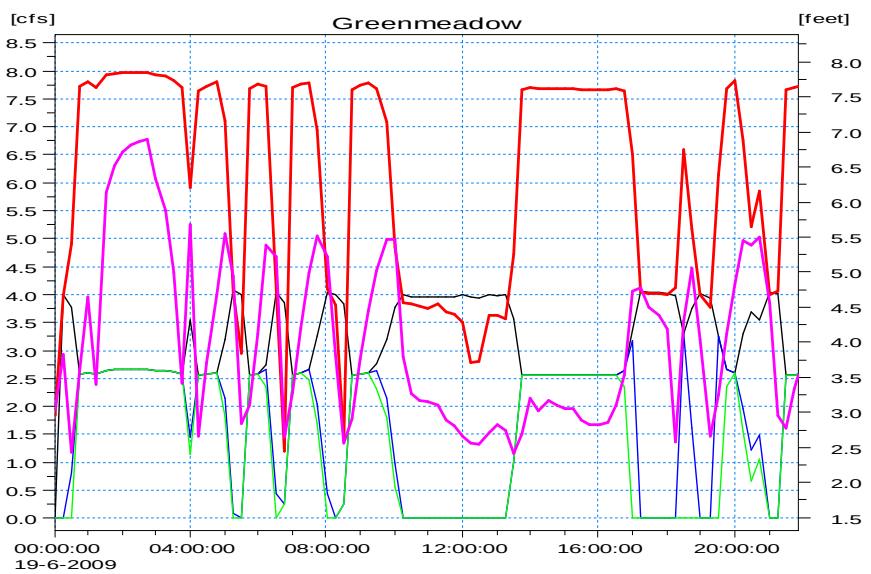
Pump Discharge
— Pebble Valley (Pebble_Valley -> 1663)

External TS 1
— Pebble Valley



Link Discharge
— 605 (2384 -> Coneview) 128.73

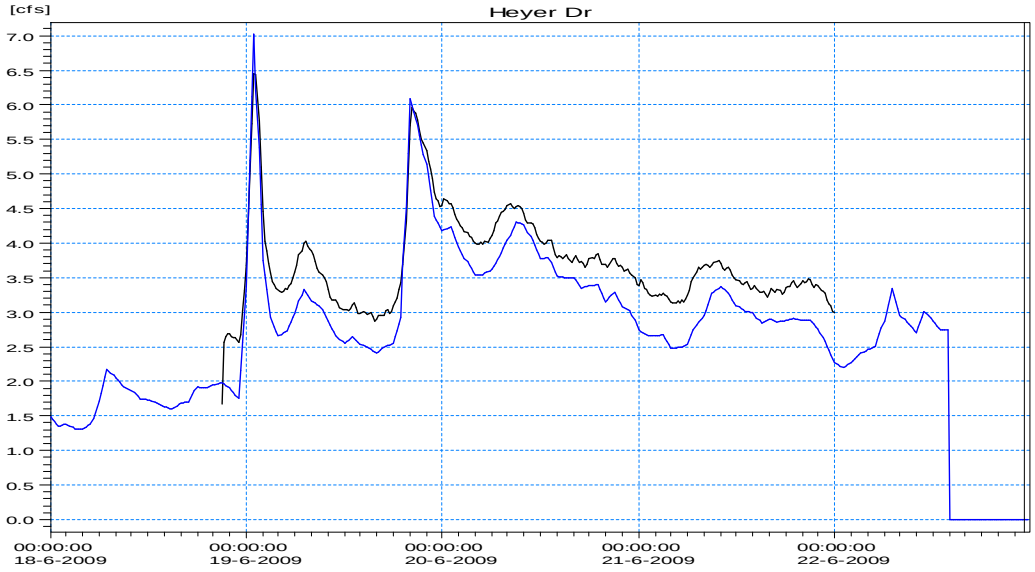
External TS 1
— Coneview Inflow Total



Pump Discharge
GM 1 (Greenmeadow -> GMFM-956)
GM 2 (Greenmeadow -> GMFM-956)
GM 3 (Greenmeadow -> GMFM-956)

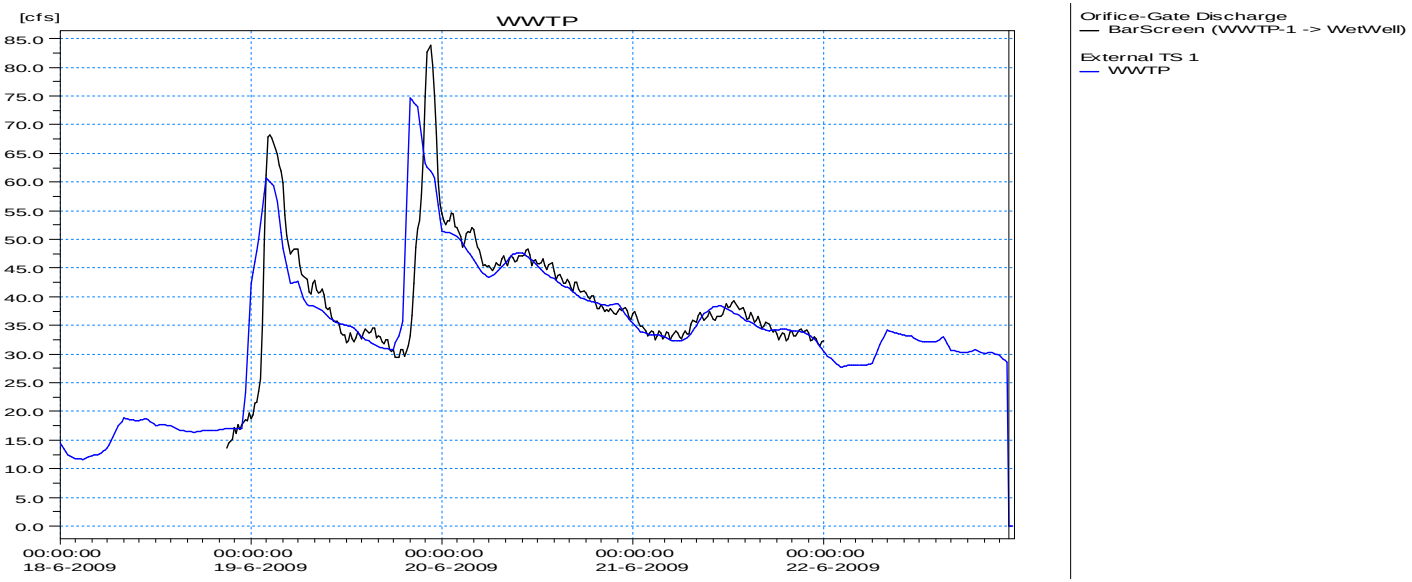
Link Discharge
GMFM-933 (GMFM-976 -> GMFM-974) 179.91

DEPTH Meter
Greenmeadow



Link Discharge
106 (5546 -> Heyer_Dr) 19.34

External TS 1
Heyer Dr


[cfs]
WWTP
85.0
80.0
75.0
70.0
65.0
60.0
55.0
50.0
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
00:00:00
18-6-2009
00:00:00
19-6-2009
00:00:00
20-6-2009
00:00:00
21-6-2009
00:00:00
22-6-2009
Orifice-Gate Discharge
BarScreen (WWTP-1 -> WetWell)
External TS 1
WWTP

Appendix I

Force Main Risk Assessment

LIKELIHOOD OF FAILURE

	Rating Factors													Weighted Ratings					
Pump Station	Number of Leaks	Pipe Age (years)	Remaining Useful Life (years)	Material	Length (ft)	Size of Main	Soil Environment	Pressure Rating (psi)	Maximum Operating Pressure (psi)	Maximum Surge Pressure (psi)	Leaks per Unit Length	Operating Pressure	Surge Pressure*	Leaks per Unit Length	Remaining Life	Embedment Soil	Operating Pressure	Surge Pressure*	Weighted Rating
													Weight	1.00	1.00	1.00	1.00	1.00	
Aviation Drive	0	12.2	57.8	PVC	4,980	4	0.0	100	33.4		0.00	0.33	0.00	0.00	0.80	0.00	4.58	0.00	1.08
Badger Dr 1 (ends 1305' from PS)	0	28.2	41.8	DI	1,305	10	3.8	350	27.3		0.00	0.27	0.00	0.00	1.96	3.78	3.71	0.00	1.89
Badger Dr 2 (ends 3385' from Badger Dr. 1)	0	1.7	68.3	HDPE	3,385	10	3.8	100	27.3		0.00	0.08	0.00	0.00	0.04	3.78	1.10	0.00	0.98
Bluemound	0	30.2	39.8	DI	516	4	3.0	350	19.9		0.00	0.06	0.00	0.00	2.11	3.00	0.78	0.00	1.18
Burr Oak Boulevard 1 (ends 2004' from PS)	0	39.9	30.1	DI	2,004	12	4.8	350	29.7	29.7	0.00	0.08	0.08	0.00	2.81	4.82	1.16	1.84	2.13
Burr Oak Boulevard 2 (ends 3538' from Burr Oak 1)	0	42.6	17.4	CI	3,538	12	1.4	350	18.9	29.7	0.00	0.05	0.08	0.00	3.74	1.36	0.74	1.84	1.53
Coneview	0	33.2	36.8	DI	2,563	16	4.3	350	22.1		0.00	0.06	0.00	0.00	2.33	4.32	0.87	0.00	1.50
Corporate Drive 1 (ends 3937' from PS)	0	9.2	60.8	PVC	3,937	10	0.0	100	25.1	23.1	0.00	0.25	0.23	0.00	0.58	0.00	3.45	5.00	1.81
Corporate Drive 2 (ends 1323' from Corporate Dr 1)	0	13.2	56.8	PVC	1,323	10	0.0	100	7.5	23.1	0.00	0.08	0.23	0.00	0.87	0.00	1.03	5.00	1.38
Corporate Drive 3 (ends 411' from Corporate Dr 2)	0	9.2	60.8	PVC	411	10	0.0	100	1.8	23.1	0.00	0.02	0.23	0.00	0.58	0.00	0.25	5.00	1.17
Dana (River Hills)	0	9.2	60.8	PVC	1,546	4	0.0	100	32.9		0.00	0.33	0.00	0.00	0.58	0.00	4.52	0.00	1.02
Deer Path	0	9.2	60.8	PVC	1,093	4	0.0	100	22.5		0.00	0.23	0.00	0.00	0.58	0.00	3.10	0.00	0.74
Deer Trails	0	3.2	66.8	PVC	800	4	0.0	100	0.0		0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.03
Fiddlers Creek	0	9.2	60.8	PVC	1,025	4	0.0	100	10.4		0.00	0.10	0.00	0.00	0.58	0.00	1.43	0.00	0.40
Fox Lake Village	0	4.2	65.8	HDPE	3,960	6	0.0	100	25.6		0.00	0.26	0.00	0.00	0.22	0.00	3.51	0.00	0.75
Fox Point	0	24.2	45.8	PVC	8,160	16	0.0	100	29.5		0.00	0.29	0.00	0.00	1.67	0.00	4.05	0.00	1.14
General Electric	4	26.4	43.6	DI	5,034	8	4.3	350	23.4	51.6	4.20	0.07	0.15	2.19	1.83	4.26	0.92	3.19	2.48
Golf Road	0	27.2	42.8	PVC	1,474	6	0.0	100	0.0		0.00	0.00	0.00	0.00	1.89	0.00	0.00	0.00	0.38
Greenmeadow 1 (ends 924' from PS)	0	11.2	58.8	DI	924	16	4.2	350	36.0	41.7	0.00	0.10	0.12	0.00	0.73	4.25	1.41	2.58	1.79
Greenmeadow 2 (ends 594' from Greenmeadow 1)	0	40.7	29.3	DI	594	16	4.2	350	36.0	41.7	0.00	0.10	0.12	0.00	2.87	4.25	1.41	2.58	2.22
Greenmeadow 3 (ends 1945' from Greenmeadow 2)	0	26.6	43.4	DI	1,945	16	4.2	350	1.7		0.00	0.00	0.00	0.00	1.85	4.25	0.07	0.00	1.23
Greenmeadow 4 (ends 2327' from Greenmeadow 3)	0	24.4	45.6	DI	2,327	16	4.2	350	5.6		0.00	0.02	0.00	0.00	1.69	4.25	0.22	0.00	1.23
Greenmeadow 5 (ends 3940' from Greenmeadow 4)	0	15.7	54.3	DI	3,940	16	4.2	350	3.3		0.00	0.01	0.00	0.00	1.06	4.25	0.13	0.00	1.09
Heritage Hills (Madison Street)	0	6.2	63.8	PVC	1,816	8	0.0	100	25.1		0.00	0.25	0.00	0.00	0.36	0.00	3.45	0.00	0.76
Heyer Dr 1 (ends 835' from PS)	0	16.2	53.8	DI	834	14	4.5	350	46.8		0.00	0.13	0.00	0.00	1.09	4.51	1.84	0.00	1.49
Heyer Dr 2 (ends 1822' from Heyer Dr 1)	1	42.2	27.8	DI	1,822	14	3.4	350	46.8		2.90	0.13	0.00	1.51	2.98	3.42	1.84	0.00	1.95
Hollidale	0	28.2	31.8	CI	68	4	3.0	350	6.9		0.00	0.02	0.00	0.00	2.69	3.00	0.27	0.00	1.19
MacArthur Road	0	21.4	48.6	DI	2,279	12	4.1	350	23.8		0.00	0.07	0.00	0.00	1.47	4.07	0.94	0.00	1.30
Milky Way 1 (ends 814' from PS)	0	19.8	50.2	PVC	814	8	3.9	100	13.0		0.00	0.13	0.00	0.00	1.36	3.90	1.79	0.00	1.41
Milky Way 2 (ends 31' from Milky Way 1)	0	21.8	38.2	CI/DI	31	8	3.9	350	13.0		0.00	0.04	0.00	0.00	2.23	3.90	0.51	0.00	1.33
Milky Way 3 (ends 124' from Milky Way 2)	0	36.6	23.4	CI/DI	124	8	3.9	350	13.0		0.00	0.04	0.00	0.00	3.30	3.90	0.51	0.00	1.54
Milky Way 4 (ends 41' from Milky Way 3)	0	25.2	34.8	CI/DI	41	8	3.9	350	13.0		0.00	0.04	0.00	0.00	2.47	3.90	0.51	0.00	1.38
Milky Way 5 (ends 25' from Milky Way 4)	0	21.8	38.2	CI/DI	25	8	3.9	350	13.0		0.00	0.04	0.00	0.00	2.23	3.90	0.51	0.00	1.33
Milky Way 6 (ends 242' from Milky Way 5)	0	19.8	50.2	PVC	242	8	3.9	100	13.0		0.00	0.13	0.00	0.00	1.36	3.90	1.79	0.00	1.41
Northview Road	0	42.2	17.8	CI	713	6	4.2	350	16.9		0.00	0.05	0.00	0.00	3.71	4.16	0.66	0.00	1.71
Pearl Street 1 (ends 788' from PS)	0	2.2	67.8	PVC	788	8	0.0	100	12.1		0.00	0.12	0.00	0.00	0.07	0.00	1.67	0.00	0.35
Pearl Street 2 (ends 648' from Pearl Street 1)	0	1.1	68.9	PVC	648	8	0.0	100	12.1		0.00	0.12	0.00	0.00	0.00	0.00	1.67	0.00	0.33
Pebble Valley	0	42.2	27.8	DI	4,154	16	3.4	350	64.1		0.00	0.18	0.00	0.00	2.98	3.42	2.52	0.00	1.78
River Place	0	17.2	52.8	PVC	405	10	0.0	100	12.6		0.00	0.13	0.00	0.00	1.16	0.00	1.73	0.00	0.58
Rivers Crossing 1 (ends 1217' from PS)	0	11.2	58.8	PVC	1,217	8	0.0	100	13.9		0.00	0.14	0.00	0.00	0.73	0.00	1.90	0.00	0.53
Rivers Crossing 2 (ends 2649' from River Crossing 1)	0	2.3	67.7	PVC	2,649	8	0.0	100	13.9		0.00	0.14	0.00	0.00	0.08	0.00	1.90	0.00	0.40
Ruben Drive 1 (ends 1524' from PS)	0	22.9	47.1	DI	1,524	12	3.5	350	19.5	36.7	0.00	0.06	0.10	0.00	1.58	3.53	0.77	2.27	1.63
Ruben Drive 2 (ends 1137' from Ruben Drive 1)	0	25.7	44.3	DI	1,137	12	3.5	350	19.5		0.00	0.06	0.00	0.00	1.78	3.53	0.77	0.00	1.22
Ruben Drive 3 (ends 3850' from Ruben Drive 2)	0	26.4	43.6	DI	3,850	12	3.5	350	19.5		0.00	0.06	0.00	0.00	1.84	3.53	0.77	0.00	1.23
Silvernail	0	9.2	60.8	PVC	3,054	6	0.0	100	28.2		0.00	0.28	0.00	0.00	0.58	0.00	3.87	0.00	0.89
Springbrook	1	17.2	52.8	DI	4,056	10	3.7	350	19.1		1.30	0.05	0.00	0.68	1.16	3.69	0.75	0.00	1.26
Summit Avenue	0	13.2	56.8	DI	2,324	12	3.3	350	33.4		0.00	0.10	0.00	0.00	0.87	3.33	1.31	0.00	1.10
Sunset Drive	2	46.3	13.7	CI	3,831	8	2.3	350	25.6		2.76	0.07	0.00	1.44	4.01	2.27	1.00	0.00	1.74
Tallgrass	0	12.8	57.2	PVC	1,335	4	0.0	100	29.0		0.00	0.29	0.00	0.00	0.85	0.00	3.99	0.00	0.97
Wal-Mart	1	20.2	49.8	DI	1,201	10	3.7	350	19.1		4.40	0.05	0.00	2.29	1.38	3.70	0.75	0.00	1.62
Wesley Drive	0	10.2	59.8	PVC	1,682	4	0.0	100	33.4		0.00	0.33	0.00	0.00	0.65	0.00	4.58	0.00	1.05
West Avenue	6	52.2	7.8	CI	3,301	10	4.2	350	35.5		9.60	0.10	0.00	5.00	4.43	4.18	1.39	0.00	3.00
West Bluemound	0	11.2	58.8	PVC	4,732	10	0.0	100	36.4		0.00	0.36	0.00	0.00	0.73	0.00	5.00	0.00	1.15
Woodfield	0	23.7	46.3	DI	701	4	3.8	350	0.0		0.00	0.00	0.00	0.00	1.64	3.81	0.00	0.00	1.09

** A surge analysis was completed only for force mains that had a high potential to experience high surge pressures.*

Material	Life Expectancy (Years)	Corrosion Factor
PVC	100	0
HDPE	100	0
DI	60	1
CI	60	1
U	50	0
CI/DI	60	1
CONC	70	0

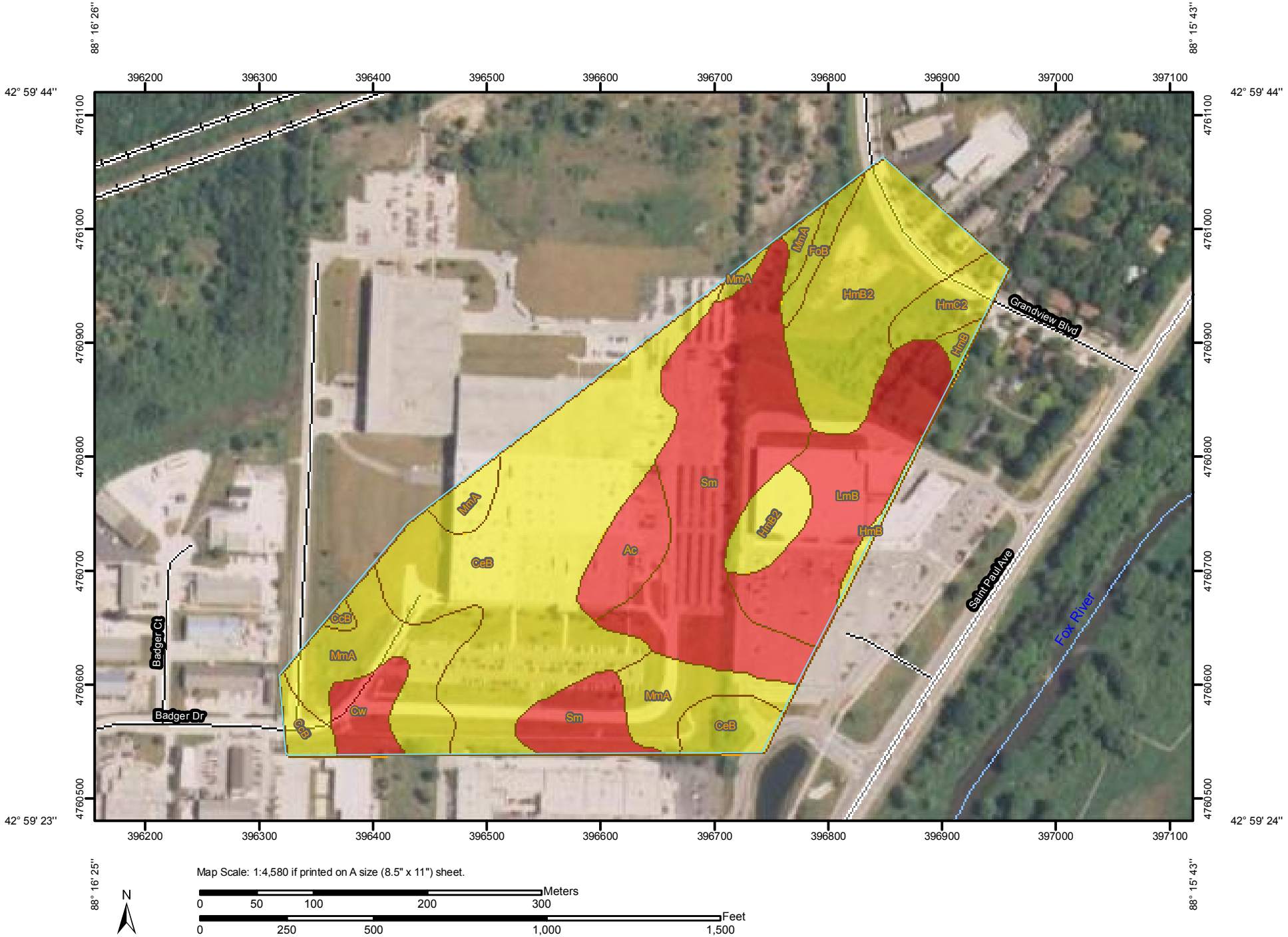
Material	Diameter	Pressure Ratir
PVC		100
HDPE		100
CI/DI	16	250
	14	250
	12	350
	10	350
	8	350
	6	350
	4	350
CONC		100

CONSEQUENCE OF FAILURE

	Rating Factors					Weighted Ratings					
Pump Station	Area Type	Street Type	Pipeline Location	Size of Main	Population Equivalent	Area Type	Street Type	Pipeline Location	Size of Main	PE	Weighted Rating
Weight						1.00	1.00	1.00	1.00	1.00	
Aviation Drive	I	M	SS	4	8	3.0	4.0	3	1.25	0.00	2.25
Badger Dr 1 (ends 1305' from PS)	I	P	SS	10	1,130	3.0	2.0	3	3.13	0.41	2.31
Badger Dr 2 (ends 3385' from Badger Dr. 1)	I	P	SS	10	1,130	3.0	2.0	3	3.13	0.41	2.31
Bluemound	I	P	SS	4	416	3.0	0.0	3	1.25	0.15	1.48
Burr Oak Boulevard 1 (ends 2004' from PS)	R	M,L	SS	12	2,577	5.0	3.1	3	3.75	0.94	3.16
Burr Oak Boulevard 2 (ends 3538' from Burr Oak 1)	R	M,L	SS	12	2,577	5.0	3.3	3	3.75	0.94	3.19
Coneview	R	L	SS	16	4,776	5.0	3.0	3	5.00	1.75	3.55
Corporate Drive 1 (ends 3937' from PS)	C,U	L	NSS	10		1.8	3.0	1	3.13	0.00	1.78
Corporate Drive 2 (ends 1323' from Corporate Dr 1)	R	L,N	SS	10		5.0	1.2	3	3.13	0.00	2.47
Corporate Drive 3 (ends 411' from Corporate Dr 2)	R,U	L,N	SS	10		4.2	1.1	3	3.13	0.00	2.29
Dana (River Hills)	R	L	SS	4	350	5.0	3.0	3	1.25	0.13	2.48
Deer Path	R	L	SS	4	248	5.0	3.0	3	1.25	0.09	2.47
Deer Trails	R	L	SS	4		5.0	3.0	3	1.25	0.00	2.45
Fiddlers Creek	R	L	SS	4	29	5.0	3.0	3	1.25	0.01	2.45
Fox Lake Village	W,U	M	SW	6	32	1.5	4.0	5	1.88	0.01	2.48
Fox Point	R,I,W	M,L	SS	16	5,674	4.2	3.5	3	5.00	2.08	3.55
General Electric	I	M	SS	8	470	3.0	4.0	3	2.50	0.17	2.53
Golf Road	C	L	SS	6	1,227	4.0	3.0	3	1.88	0.45	2.46
Greenmeadow 1 (ends 924' from PS)	R,I	H,M,L	SS	16	13,639	3.0	1.5	3	5.00	5.00	3.50
Greenmeadow 2 (ends 594' from Greenmeadow 1)	R,I	H,M,L	SS	16	13,639	3.0	1.5	3	5.00	5.00	3.50
Greenmeadow 3 (ends 1945' from Greenmeadow 2)	R,I	H,M,L	SS	16	13,639	5.0	4.0	3	5.00	5.00	4.40
Greenmeadow 4 (ends 2327' from Greenmeadow 3)	R,I	H,M,L	SS	16	13,639	5.0	3.0	3	5.00	5.00	4.20
Greenmeadow 5 (ends 3940' from Greenmeadow 4)	R,I	H,M,L	SS	16	13,639	4.2	1.9	3	5.00	5.00	3.83
Heritage Hills (Madison Street)	R	M	SS	8	221	5.0	4.0	3	2.50	0.08	2.92
Heyer Dr 1 (ends 835' from PS)	R	M,N	SS	14	5,851	5.0	3.3	3	4.38	2.14	3.55
Heyer Dr 2 (ends 1822' from Heyer Dr 1)	R	M	SS	14	5,851	5.0	4.0	3	4.38	2.14	3.70
Hollidale	R,C	L	SS	4	678	5.0	3.0	3	1.25	0.25	2.50
MacArthur Road	R	L	SS	12	486	5.0	3.0	3	3.75	0.18	2.99
Milky Way 1 (ends 814' from PS)	R	H,M	SS	8	856	5.0	4.5	3	2.50	0.31	3.06
Milky Way 2 (ends 31' from Milky Way 1)	R	H,M	SS	8	856	5.0	4.5	3	2.50	0.31	3.06
Milky Way 3 (ends 124' from Milky Way 2)	R	H,M	SS	8	856	5.0	4.5	3	2.50	0.31	3.06
Milky Way 4 (ends 41' from Milky Way 3)	R	H,M	SS	8	856	5.0	4.5	3	2.50	0.31	3.06
Milky Way 5 (ends 25' from Milky Way 4)	R	H,M	SS	8	856	5.0	4.5	3	2.50	0.31	3.06
Milky Way 6 (ends 242' from Milky Way 5)	R	H,M	SS	8	856	5.0	4.5	3	2.50	0.31	3.06
Northview Road	C	M	SS	6	2,662	4.0	4.0	3	1.88	0.98	2.77
Pearl Street 1 (ends 788' from PS)	I	L	SS	8	192	3.0	3.0	3	2.50	0.07	2.31
Pearl Street 2 (ends 648' from Pearl Street 1)	I	L	SS	8	192	3.0	3.0	3	2.50	0.07	2.31
Pebble Valley	R	M,L	SW	16	8,045	5.0	3.1	5	5.00	2.95	4.20
River Place	R	L	SS	10	2,574	5.0	3.0	3	3.13	0.94	3.01
Rivers Crossing 1 (ends 1217' from PS)	R,W	M,L	SS	8	1,244	3.5	3.1	3	2.50	0.46	2.52
Rivers Crossing 2 (ends 2649' from River Crossing 1)	R,W	M,L	SS	8	1,244	3.5	3.1	3	2.50	0.46	2.52
Ruben Drive 1 (ends 1524' from PS)	R	L	SS	12	2,164	5.0	3.0	3	3.75	0.79	3.11
Ruben Drive 2 (ends 1137' from Ruben Drive 1)	R	L	SS	12	2,164	5.0	3.0	3	3.75	0.79	3.11
Ruben Drive 3 (ends 3850' from Ruben Drive 2)	R	H,L	SS	12	2,164	5.0	3.7	3	3.75	0.79	3.24
Silvernail	I	L	SS	6		3.0	3.0	3	1.88	0.00	2.18
Springbrook	R	M,L	SS	10	933	5.0	3.2	3	3.13	0.34	2.94
Summit Avenue	I	H,P	SS	12	2,400	3.0	2.9	3	3.75	0.88	2.71
Sunset Drive	R,I,W	M	SS	8	1,401	3.3	4.0	3	2.50	0.51	2.67
Tallgrass	R	N	SS	4	288	5.0	1.0	3	1.25	0.11	2.07
Wal-Mart	I	H	SS	10	567	3.0	5.0	3	3.13	0.21	2.87
Wesley Drive	R	L	SS	4	300	5.0	3.0	3	1.25	0.11	2.47
West Avenue	R,I	M	SS	10	3,957	4.0	4.0	3	3.13	1.45	3.12
West Bluemound	I,U	M	NSS	10		2.0	4.0	1	3.13	0.00	2.03
Woodfield	R	L	SS	4	597	5.0	3.0	3	1.25	0.22	2.49

Ratings Codes

Description	Code	Rating
Area Type		
Residential	R	5
Commercial	C	4
Industrial	I	3
Waterway	W	2
Undeveloped	U	1
Street Type		
Highway	H	5
Main Road	M	4
Local	L	3
Private	P	2
None	N	1
Pipeline Location		
Surface water present	SW	5
Storm sewer present	SS	3
No storm sewer present	NSS	1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Grandview Blvd
Saint Paul Ave
Fox River
Badger Ct
Badger Dr
Map Scale: 1:4,580 if printed on A size (8.5" x 11") sheet.
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Meters
0 50 100 200 300
Feet
0 250 500 1,000 1,500

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Units

Soil Ratings
- High
- Moderate
- Low
- Not rated or not available

Political Features
- Cities

Water Features
- Oceans
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:4,580 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:15,840.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 16N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Milwaukee and Waukesha Counties, Wisconsin
Survey Area Data: Version 4, May 26, 2009

Date(s) aerial images were photographed: 6/6/2005

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Corrosion of Steel

Corrosion of Steel— Summary by Map Unit — Milwaukee and Waukesha Counties, Wisconsin				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
Ac	Adrian muck	High	1.4	3.4%
CcB	Casco sandy loam, 2 to 6 percent slopes	Moderate	0.6	1.4%
CeB	Casco loam, 2 to 6 percent slopes	Moderate	11.9	27.7%
Cw	Colwood silt loam	High	1.1	2.5%
FoB	Fox loam, 2 to 6 percent slopes	Moderate	0.5	1.1%
HmB	Hochheim loam, 2 to 6 percent slopes	Moderate	0.5	1.1%
HmB2	Hochheim loam, 2 to 6 percent slopes, eroded	Moderate	6.1	14.4%
HmC2	Hochheim loam, 6 to 12 percent slopes, eroded	Moderate	1.1	2.5%
LmB	Lamartine silt loam, 1 to 4 percent slopes	High	4.6	10.7%
MmA	Matherton silt loam, 1 to 3 percent slopes	Moderate	5.5	12.9%
Sm	Sebewa silt loam	High	9.6	22.4%
Totals for Area of Interest			**42.8**	**100.0%**

Description

"Risk of corrosion" pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the steel in installations that are entirely within one kind of soil or within one soil layer.

The risk of corrosion is expressed as "low," "moderate," or "high."

Rating Options

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie.

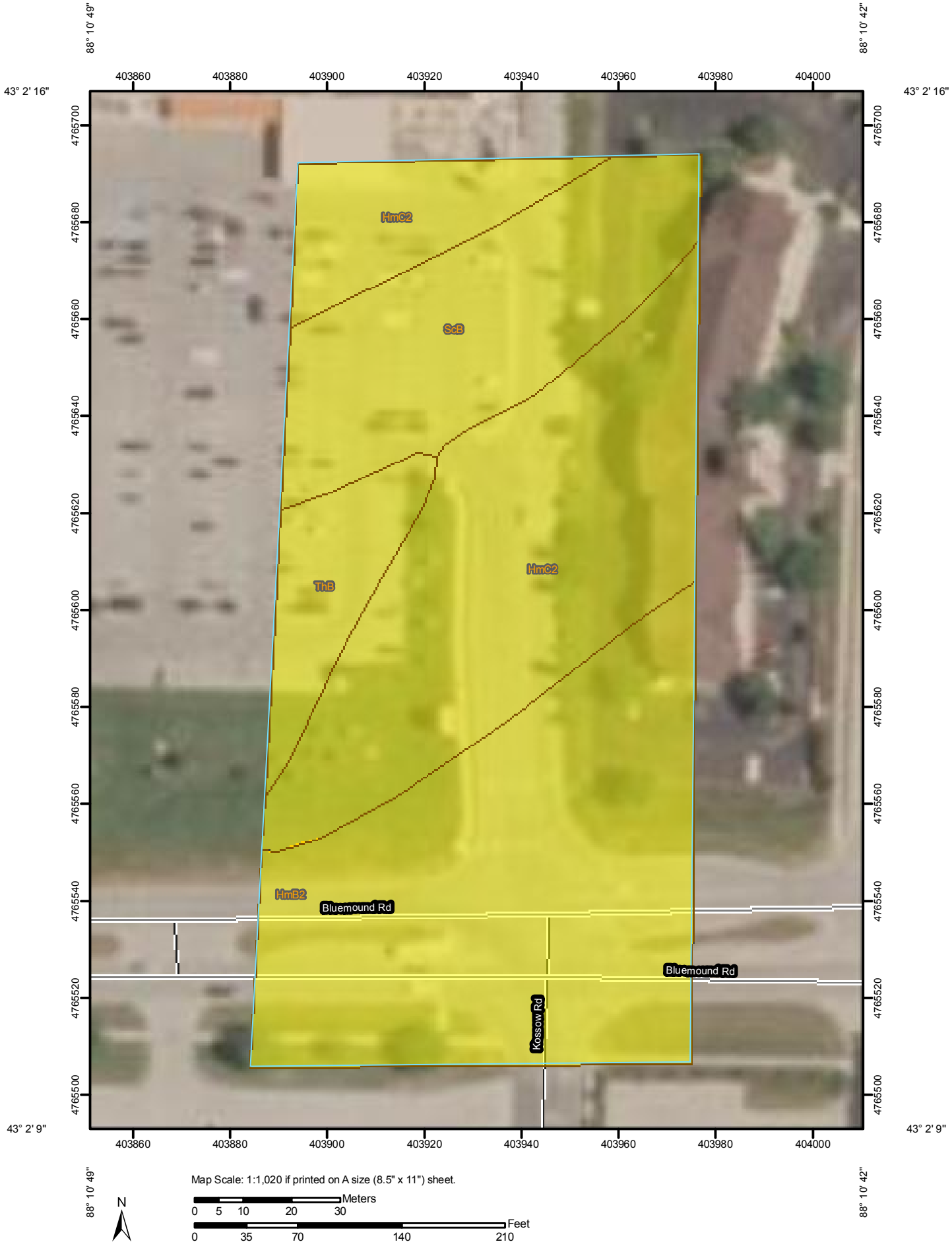
The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.


88° 10' 49"
88° 10' 42"
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43° 2' 9"
403860
403880
403900
403920
403940
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404000
4765700
4765680
4765660
4765640
4765620
4765600
4765580
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4765540
4765520
4765500
HmC2
ScB
ThB
HmC2
HmB2
Bluemound Rd
Bluemound Rd
Kossow Rd
Map Scale: 1:1,020 if printed on A size (8.5" x 11") sheet.
N
Meters
0 5 10 20 30
Feet
0 35 70 140 210

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Units

Soil Ratings
- High
- Moderate
- Low
- Not rated or not available

Political Features
- Cities

Water Features
- Oceans
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:1,020 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:15,840.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 16N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Milwaukee and Waukesha Counties, Wisconsin
Survey Area Data: Version 4, May 26, 2009

Date(s) aerial images were photographed: 6/16/2005

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Corrosion of Steel

Corrosion of Steel— Summary by Map Unit — Milwaukee and Waukesha Counties, Wisconsin				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
HmB2	Hochheim loam, 2 to 6 percent slopes, eroded	Moderate	1.5	37.8%
HmC2	Hochheim loam, 6 to 12 percent slopes, eroded	Moderate	1.5	36.8%
ScB	St. Charles silt loam, 2 to 6 percent slopes	Moderate	0.8	19.0%
ThB	Theresa silt loam, 2 to 6 percent slopes	Moderate	0.3	6.4%
Totals for Area of Interest			**4.0**	**100.0%**

Description

"Risk of corrosion" pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the steel in installations that are entirely within one kind of soil or within one soil layer.

The risk of corrosion is expressed as "low," "moderate," or "high."

Rating Options

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie.

The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.


88° 15' 28"
88° 15' 3"
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397920
397980
4759500
4759440
4759380
4759320
4759260
4759200
Hemlock Ln
Cottonwood Dr
Sycamore Dr
Burr Oak Blvd
Burr Oak Ct
Oakdale Dr
Oakdale Ct
Dixie Dr
Chapman Dr
WhA
KeA
Sm
AzB
PrA
Map Scale: 1:2,730 if printed on A size (8.5" x 11") sheet.
N
Meters
0 35 70 140 210
Feet
0 150 300 600 900

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Units

Soil Ratings
- High
- Moderate
- Low
- Not rated or not available

Political Features
- Cities

Water Features
- Oceans
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:2,730 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:15,840.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 16N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Milwaukee and Waukesha Counties, Wisconsin
Survey Area Data: Version 4, May 26, 2009

Date(s) aerial images were photographed: 6/6/2005; 6/16/2005

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Corrosion of Steel

Corrosion of Steel— Summary by Map Unit — Milwaukee and Waukesha Counties, Wisconsin				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
AzB	Aztalan loam, 2 to 6 percent slopes	High	0.2	3.6%
KeA	Kane silt loam, 1 to 3 percent slopes	High	1.6	25.3%
PrA	Pistakee silt loam, 1 to 3 percent slopes	High	0.4	5.5%
Sm	Sebewa silt loam	High	3.7	56.8%
WhA	Warsaw silt loam, 0 to 2 percent slopes	Low	0.6	8.9%
Totals for Area of Interest			**6.5**	**100.0%**

Description

"Risk of corrosion" pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the steel in installations that are entirely within one kind of soil or within one soil layer.

The risk of corrosion is expressed as "low," "moderate," or "high."

Rating Options

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie.

The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.


88° 15' 19"
88° 14' 50"
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4760300
4760200
4760100
4760000
4759900
4759800
4759700
4759600
4759500
Sentry Dr
Sunset Dr
Cottonwood Dr
Green Valley Dr
Green Valley Ln
Wisteria Ln
Dogwood Ln
Hemit Ave
School Dr
Sycamore Dr
Dixie Dr
Hemlock Ln
Chapman Dr
Center Rd
Burr Oak Blvd
WeA
WeB
KeA
WmA
WhA
Map Scale: 1:4,250 if printed on A size (8.5" x 11") sheet.
N
Meters
0 40 80 160 240
Feet
0 150 300 600 900

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Units

Soil Ratings
- High
- Moderate
- Low
- Not rated or not available

Political Features
- Cities

Water Features
- Oceans
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:4,250 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:15,840.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 16N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Milwaukee and Waukesha Counties, Wisconsin
Survey Area Data: Version 4, May 26, 2009

Date(s) aerial images were photographed: 6/6/2005; 6/16/2005

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Corrosion of Steel

Corrosion of Steel— Summary by Map Unit — Milwaukee and Waukesha Counties, Wisconsin				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
KeA	Kane silt loam, 1 to 3 percent slopes	High	0.9	8.9%
WeA	Warsaw loam, 0 to 2 percent slopes	Low	1.2	12.2%
WeB	Warsaw loam, 2 to 6 percent slopes	Low	2.7	27.9%
WhA	Warsaw silt loam, 0 to 2 percent slopes	Low	4.9	51.0%
Totals for Area of Interest			**9.6**	**100.0%**

Description

"Risk of corrosion" pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the steel in installations that are entirely within one kind of soil or within one soil layer.

The risk of corrosion is expressed as "low," "moderate," or "high."

Rating Options

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie.

The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.


88° 17' 20"
88° 16' 33"
43° 0' 42"
43° 0' 43"
43° 0' 19"
43° 0' 20"
88° 17' 20"
88° 16' 32"
395000
395100
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HmB2
HmE2
Ph
PrA
KIA
HmC2
HmB
LmB
MoB
Merrill Hills Rd
Merrill Hills Ct
Cone View Ln
Glacier Ct
Mesa Verde Dr
Mesa Ct
Minot Ln
Farmview Ct
Madison Ct
View Ct
Crestwood Dr
Mucklestone Ct
Comanche Ln
Map Scale: 1:5,090 if printed on A size (8.5" x 11") sheet.
N
Meters
0 50 100 200 300
Feet
0 250 500 1,000 1,500

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Units

Soil Ratings
- High
- Moderate
- Low
- Not rated or not available

Political Features
- Cities

Water Features
- Oceans
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:5,090 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:15,840.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 16N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Milwaukee and Waukesha Counties, Wisconsin
Survey Area Data: Version 4, May 26, 2009

Date(s) aerial images were photographed: 6/6/2005

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Corrosion of Steel

Corrosion of Steel— Summary by Map Unit — Milwaukee and Waukesha Counties, Wisconsin				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
HmB	Hochheim loam, 2 to 6 percent slopes	Moderate	1.9	6.4%
HmB2	Hochheim loam, 2 to 6 percent slopes, eroded	Moderate	2.6	9.0%
HmC2	Hochheim loam, 6 to 12 percent slopes, eroded	Moderate	3.1	10.5%
HmE2	Hochheim loam, 20 to 30 percent slopes, eroded	Moderate	0.3	0.9%
KlA	Kendall silt loam, 1 to 3 percent slopes	High	0.0	0.0%
LmB	Lamartine silt loam, 1 to 4 percent slopes	High	18.6	64.1%
MoB	Mayville silt loam, 2 to 6 percent slopes	Moderate	2.1	7.4%
Ph	Pella silt loam	High	0.2	0.8%
PrA	Pistakee silt loam, 1 to 3 percent slopes	High	0.3	0.9%
Totals for Area of Interest			**29.0**	**100.0%**

Description

"Risk of corrosion" pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the steel in installations that are entirely within one kind of soil or within one soil layer.

The risk of corrosion is expressed as "low," "moderate," or "high."

Rating Options

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie.

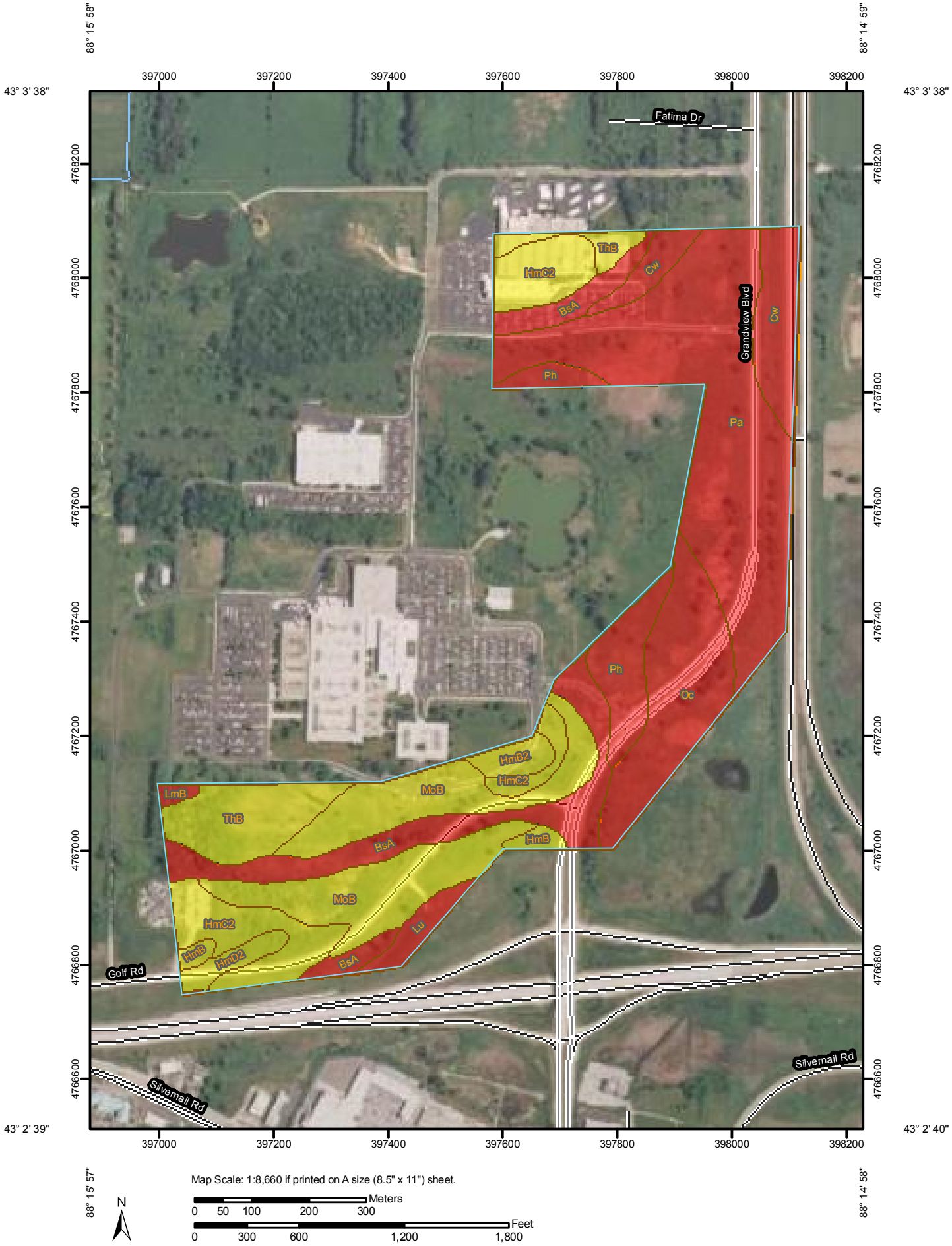
The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.


88° 15' 58"
88° 14' 59"
43° 3' 38"
43° 2' 39"
43° 2' 40"
88° 15' 57"
88° 14' 58"
397000
397200
397400
397600
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398000
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4768200
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4767800
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4767200
4767000
4766800
4766600
Fatima Dr
Grandview Blvd
Golf Rd
Silvernail Rd
Silvernail Rd
ThB
HmC2
BsA
Cw
Cw
Ph
Pa
Ph
Oc
HmB2
HmC2
LmB
MoB
ThB
BsA
HmB
MoB
HmC2
HmB
HmD2
BsA
Lu
Map Scale: 1:8,660 if printed on A size (8.5" x 11") sheet.
N
Meters
0 50 100 200 300
Feet
0 300 600 1,200 1,800

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Units

Soil Ratings
- High
- Moderate
- Low
- Not rated or not available

Political Features
- Cities

Water Features
- Oceans
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:8,660 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:15,840.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 16N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Milwaukee and Waukesha Counties, Wisconsin
Survey Area Data: Version 4, May 26, 2009

Date(s) aerial images were photographed: 6/6/2005; 6/16/2005

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Corrosion of Steel

Corrosion of Steel— Summary by Map Unit — Milwaukee and Waukesha Counties, Wisconsin				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
BsA	Brookston silt loam, 0 to 3 percent slopes	High	15.1	11.5%
Cw	Colwood silt loam	High	8.1	6.2%
HmB	Hochheim loam, 2 to 6 percent slopes	Moderate	1.4	1.1%
HmB2	Hochheim loam, 2 to 6 percent slopes, eroded	Moderate	1.8	1.4%
HmC2	Hochheim loam, 6 to 12 percent slopes, eroded	Moderate	13.3	10.2%
HmD2	Hochheim loam, 12 to 20 percent slopes, eroded	Moderate	1.8	1.4%
LmB	Lamartine silt loam, 1 to 4 percent slopes	High	0.5	0.4%
Lu	Loamy land	High	2.3	1.8%
MoB	Mayville silt loam, 2 to 6 percent slopes	Moderate	21.1	16.1%
Oc	Ogden muck	High	13.6	10.4%
Pa	Palms muck	High	35.7	27.2%
Ph	Pella silt loam	High	6.9	5.3%
ThB	Theresa silt loam, 2 to 6 percent slopes	Moderate	9.4	7.1%
Totals for Area of Interest			**131.1**	**100.0%**

Description

"Risk of corrosion" pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the steel in installations that are entirely within one kind of soil or within one soil layer.

The risk of corrosion is expressed as "low," "moderate," or "high."

Rating Options

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie.

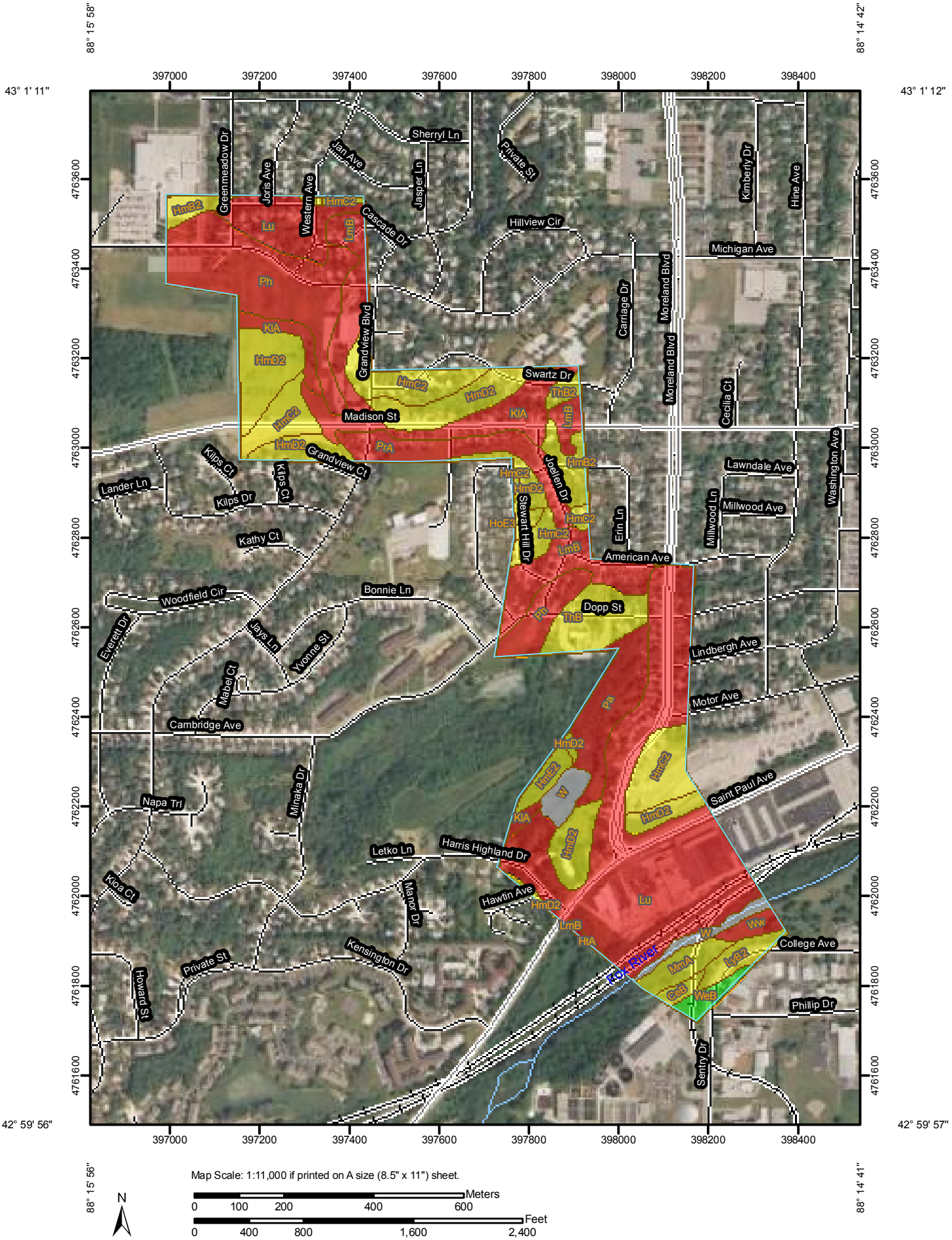
The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.



Map Scale: 1:11,000 if printed on A size (8.5" x 11") sheet.

N

Meters
0 100 200 400 600

Feet
0 400 800 1,600 2,400

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Units

Soil Ratings
- High
- Moderate
- Low
- Not rated or not available

Political Features
- Cities

Water Features
- Oceans
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:11,000 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:15,840.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 16N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Milwaukee and Waukesha Counties, Wisconsin
Survey Area Data: Version 4, May 26, 2009

Date(s) aerial images were photographed: 6/6/2005; 6/16/2005

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Corrosion of Steel

Corrosion of Steel— Summary by Map Unit — Milwaukee and Waukesha Counties, Wisconsin				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
CeB	Casco loam, 2 to 6 percent slopes	Moderate	0.9	0.5%
HmB2	Hochheim loam, 2 to 6 percent slopes, eroded	Moderate	4.6	2.6%
HmC2	Hochheim loam, 6 to 12 percent slopes, eroded	Moderate	16.9	9.6%
HmD2	Hochheim loam, 12 to 20 percent slopes, eroded	Moderate	22.0	12.5%
HmE2	Hochheim loam, 20 to 30 percent slopes, eroded	Moderate	1.7	1.0%
HoE3	Hochheim soils, 20 to 30 percent slopes, severely eroded	Moderate	0.5	0.3%
HtA	Houghton muck, 0 to 2 percent slopes	High	0.2	0.1%
KlA	Kendall silt loam, 1 to 3 percent slopes	High	8.3	4.7%
LmB	Lamartine silt loam, 1 to 4 percent slopes	High	16.5	9.4%
Lu	Loamy land	High	48.6	27.7%
LyB2	Lorenzo loam, 2 to 6 percent slopes, eroded	Moderate	2.4	1.4%
MmA	Matherton silt loam, 1 to 3 percent slopes	Moderate	2.9	1.6%
Pa	Palms muck	High	7.4	4.2%
Ph	Pella silt loam	High	21.6	12.3%
PrA	Pistakee silt loam, 1 to 3 percent slopes	High	7.3	4.1%
ThB	Theresa silt loam, 2 to 6 percent slopes	Moderate	6.1	3.5%
ThB2	Theresa silt loam, 2 to 6 percent slopes, eroded	Moderate	0.9	0.5%
W	Water		3.8	2.1%
WeB	Warsaw loam, 2 to 6 percent slopes	Low	1.7	1.0%
Ww	Wet alluvial land	High	1.4	0.8%
Totals for Area of Interest			**175.6**	**100.0%**

Description

"Risk of corrosion" pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the steel in installations that are entirely within one kind of soil or within one soil layer.

The risk of corrosion is expressed as "low," "moderate," or "high."

Rating Options

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie.

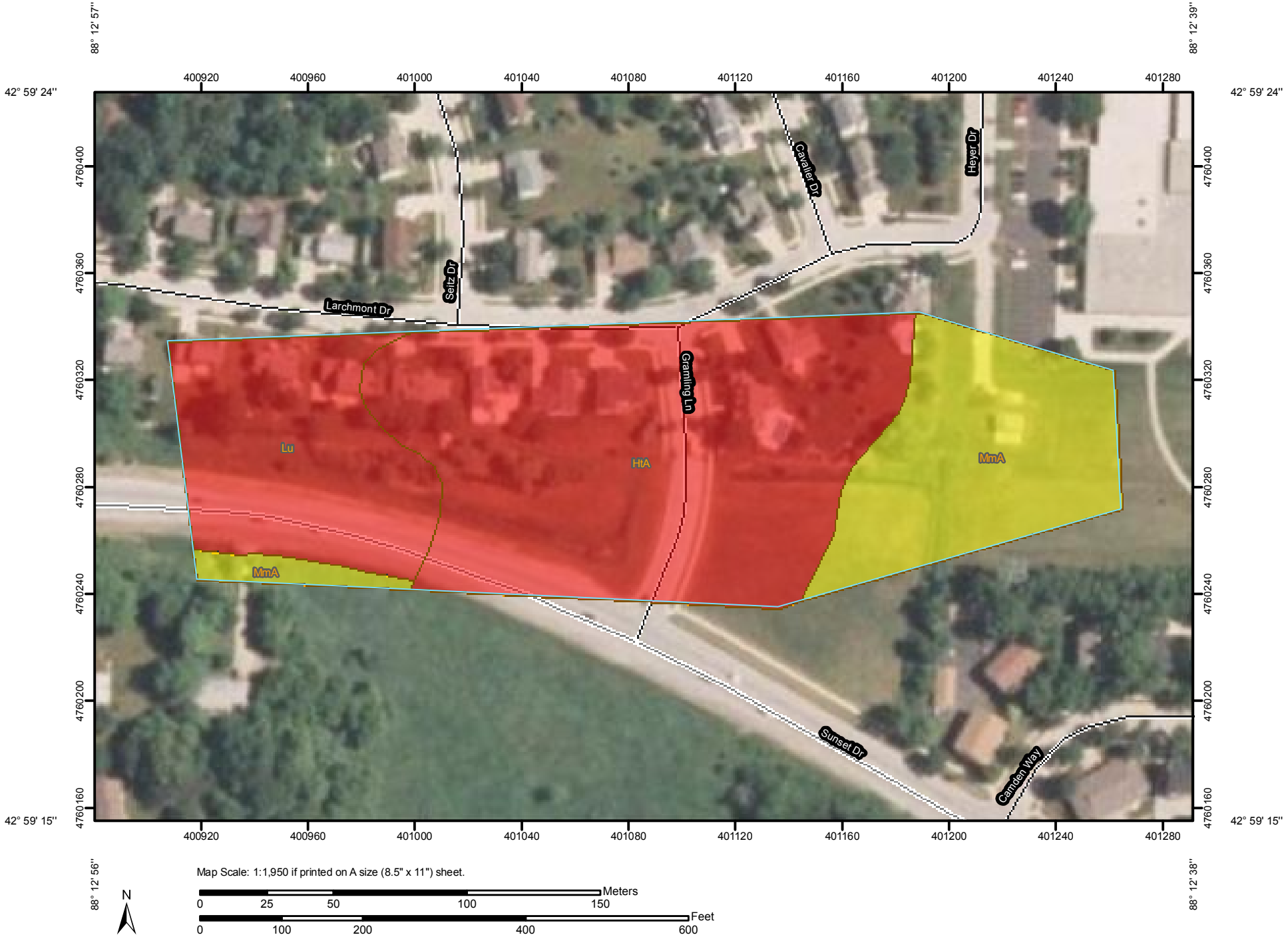
The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.


88° 12' 57"
88° 12' 39"
42° 59' 24"
400920
400960
401000
401040
401080
401120
401160
401200
401240
401280
4760400
4760360
4760320
4760280
4760240
4760200
4760160
42° 59' 15"
88° 12' 56"
88° 12' 38"
Larchmont Dr
Seitz Dr
Cavalier Dr
Heyer Dr
Gramling Ln
Sunset Dr
Camden Way
Lu
HtA
MmA
MmA
Map Scale: 1:1,950 if printed on A size (8.5" x 11") sheet.
N
Meters
0
25
50
100
150
Feet
0
100
200
400
600

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Units

Soil Ratings

- High
- Moderate
- Low
- Not rated or not available

Political Features

- Cities

Water Features

- Oceans
- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:1,950 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:15,840.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 16N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Milwaukee and Waukesha Counties, Wisconsin
Survey Area Data: Version 4, May 26, 2009

Date(s) aerial images were photographed: 6/16/2005

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Corrosion of Steel

Corrosion of Steel— Summary by Map Unit — Milwaukee and Waukesha Counties, Wisconsin				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
HtA	Houghton muck, 0 to 2 percent slopes	High	4.4	54.0%
Lu	Loamy land	High	1.7	21.4%
MmA	Matherton silt loam, 1 to 3 percent slopes	Moderate	2.0	24.7%
Totals for Area of Interest			**8.1**	**100.0%**

Description

"Risk of corrosion" pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the steel in installations that are entirely within one kind of soil or within one soil layer.

The risk of corrosion is expressed as "low," "moderate," or "high."

Rating Options

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie.

The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.


88° 13' 19"
88° 12' 49"
42° 59' 25"
42° 59' 26"
42° 59' 11"
42° 59' 11"
88° 13' 18"
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400450
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400590
400660
400730
400800
400870
400940
401010
4760480
4760410
4760340
4760270
4760200
4760130
4760060
Wedgewood Dr
Sweetbriar Ct
Sweetbriar Dr
Ayrshire Ln
Seitz Dr
Larchmont Dr
Sunset Dr
Tenny Ave
Sunset Vw
HmB
HmB2
MoA
HmB2
HmC2
Lu
HtA
Map Scale: 1:3,210 if printed on A size (8.5" x 11") sheet.
N
Meters
0 40 80 160 240
Feet
0 150 300 600 900

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Units

Soil Ratings
- High
- Moderate
- Low
- Not rated or not available

Political Features
- Cities

Water Features
- Oceans
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:3,220 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:15,840.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 16N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Milwaukee and Waukesha Counties, Wisconsin
Survey Area Data: Version 4, May 26, 2009

Date(s) aerial images were photographed: 6/16/2005

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Corrosion of Steel

Corrosion of Steel— Summary by Map Unit — Milwaukee and Waukesha Counties, Wisconsin				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
HmB	Hochheim loam, 2 to 6 percent slopes	Moderate	1.0	29.5%
HmB2	Hochheim loam, 2 to 6 percent slopes, eroded	Moderate	1.0	29.2%
HmC2	Hochheim loam, 6 to 12 percent slopes, eroded	Moderate	0.2	7.2%
HtA	Houghton muck, 0 to 2 percent slopes	High	0.0	0.9%
Lu	Loamy land	High	0.7	20.4%
MoA	Mayville silt loam, 0 to 2 percent slopes	Moderate	0.4	12.9%
Totals for Area of Interest			**3.5**	**100.0%**

Description

"Risk of corrosion" pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the steel in installations that are entirely within one kind of soil or within one soil layer.

The risk of corrosion is expressed as "low," "moderate," or "high."

Rating Options

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie.

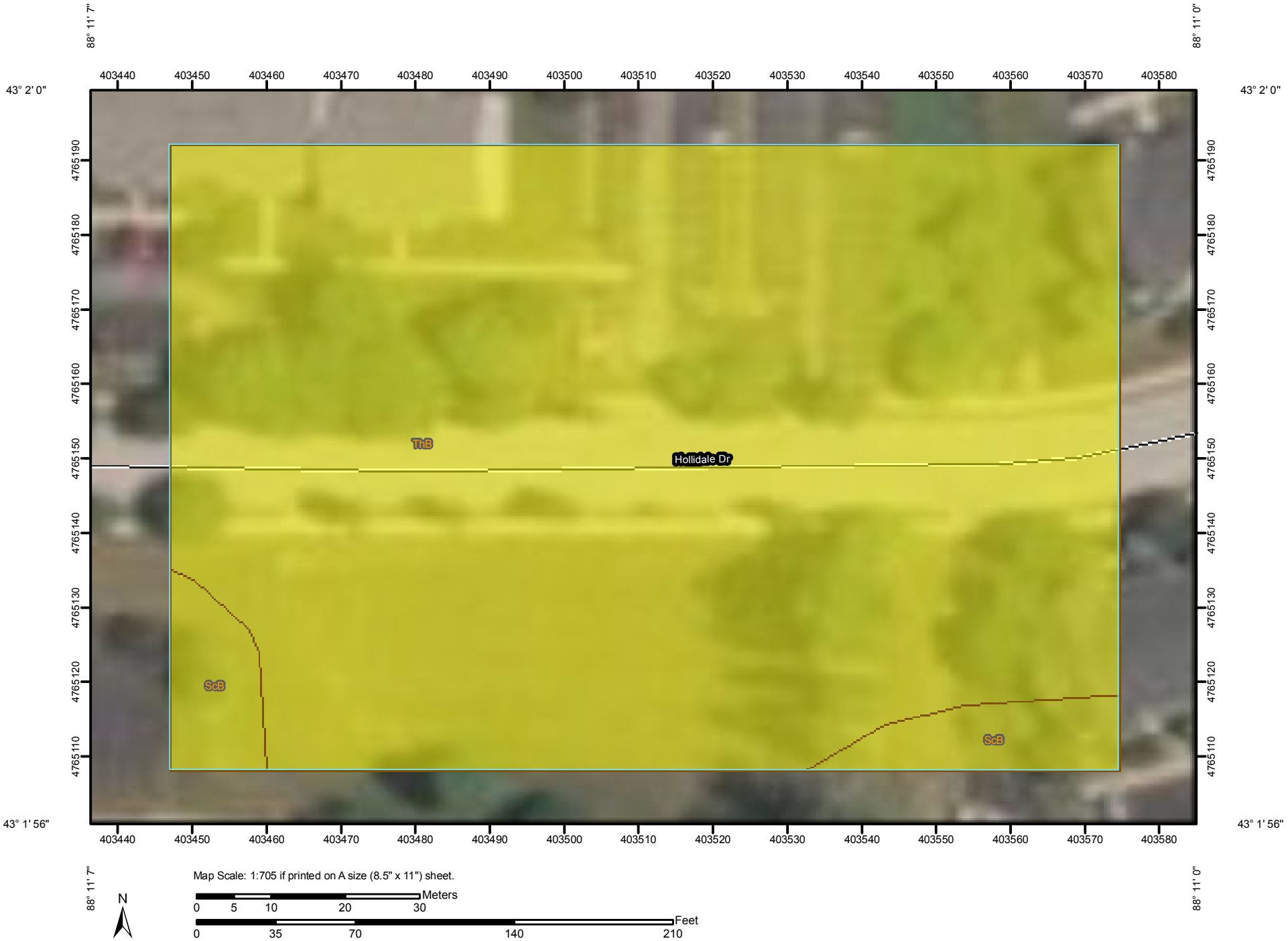
The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.


88° 11' 7"
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4765180
4765170
4765160
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4765140
4765130
4765120
4765110
ThB
Hollidale Dr
ScB
ScB
Map Scale: 1:705 if printed on A size (8.5" x 11") sheet.
N
Meters
0 5 10 20 30
Feet
0 35 70 140 210

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Units

Soil Ratings
- High
- Moderate
- Low
- Not rated or not available

Political Features
- Cities

Water Features
- Oceans
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:705 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:15,840.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 16N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Milwaukee and Waukesha Counties, Wisconsin
Survey Area Data: Version 4, May 26, 2009

Date(s) aerial images were photographed: 6/16/2005

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Corrosion of Steel

Corrosion of Steel— Summary by Map Unit — Milwaukee and Waukesha Counties, Wisconsin				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
ScB	St. Charles silt loam, 2 to 6 percent slopes	Moderate	0.1	5.6%
ThB	Theresa silt loam, 2 to 6 percent slopes	Moderate	2.5	94.4%
Totals for Area of Interest			**2.6**	**100.0%**

Description

"Risk of corrosion" pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the steel in installations that are entirely within one kind of soil or within one soil layer.

The risk of corrosion is expressed as "low," "moderate," or "high."

Rating Options

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie.

The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.


88° 17' 3"
88° 16' 25"
42° 59' 58"
395400
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395580
395670
395760
395850
395940
396030
396120
4761510
4761420
4761330
4761240
4761150
4761060
42° 59' 39"
88° 16' 24"
Winnebago Way
Comanche Ln
Woodglen Ct
Fieldridge Dr
Fieldridge Ct
Mac Arthur Rd
Oakcrest Dr
Field Dr
Brighton Dr
Poplar Dr
HmD2
HmC2
LmB
HmB2
HoD3
BsA
Oc
Sm
Ph
Map Scale: 1:4,150 if printed on A size (8.5" x 11") sheet.
N
Meters
0 50 100 200 300
Feet
0 200 400 800 1,200

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Units

Soil Ratings

- High
- Moderate
- Low
- Not rated or not available

Political Features

- Cities

Water Features

- Oceans
- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:4,150 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:15,840.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 16N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Milwaukee and Waukesha Counties, Wisconsin
Survey Area Data: Version 4, May 26, 2009

Date(s) aerial images were photographed: 6/6/2005

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Corrosion of Steel

Corrosion of Steel— Summary by Map Unit — Milwaukee and Waukesha Counties, Wisconsin				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
BsA	Brookston silt loam, 0 to 3 percent slopes	High	0.5	2.7%
HmB2	Hochheim loam, 2 to 6 percent slopes, eroded	Moderate	3.8	22.0%
HmC2	Hochheim loam, 6 to 12 percent slopes, eroded	Moderate	1.7	10.0%
HmD2	Hochheim loam, 12 to 20 percent slopes, eroded	Moderate	1.2	7.1%
HoD3	Hochheim soils, 12 to 20 percent slopes, severely eroded	Moderate	0.9	5.1%
LmB	Lamartine silt loam, 1 to 4 percent slopes	High	2.7	15.6%
Oc	Ogden muck	High	3.2	18.6%
Ph	Pella silt loam	High	1.7	9.9%
Sm	Sebewa silt loam	High	1.6	9.0%
Totals for Area of Interest			**17.4**	**100.0%**

Description

"Risk of corrosion" pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the steel in installations that are entirely within one kind of soil or within one soil layer.

The risk of corrosion is expressed as "low," "moderate," or "high."

Rating Options

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie.

The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

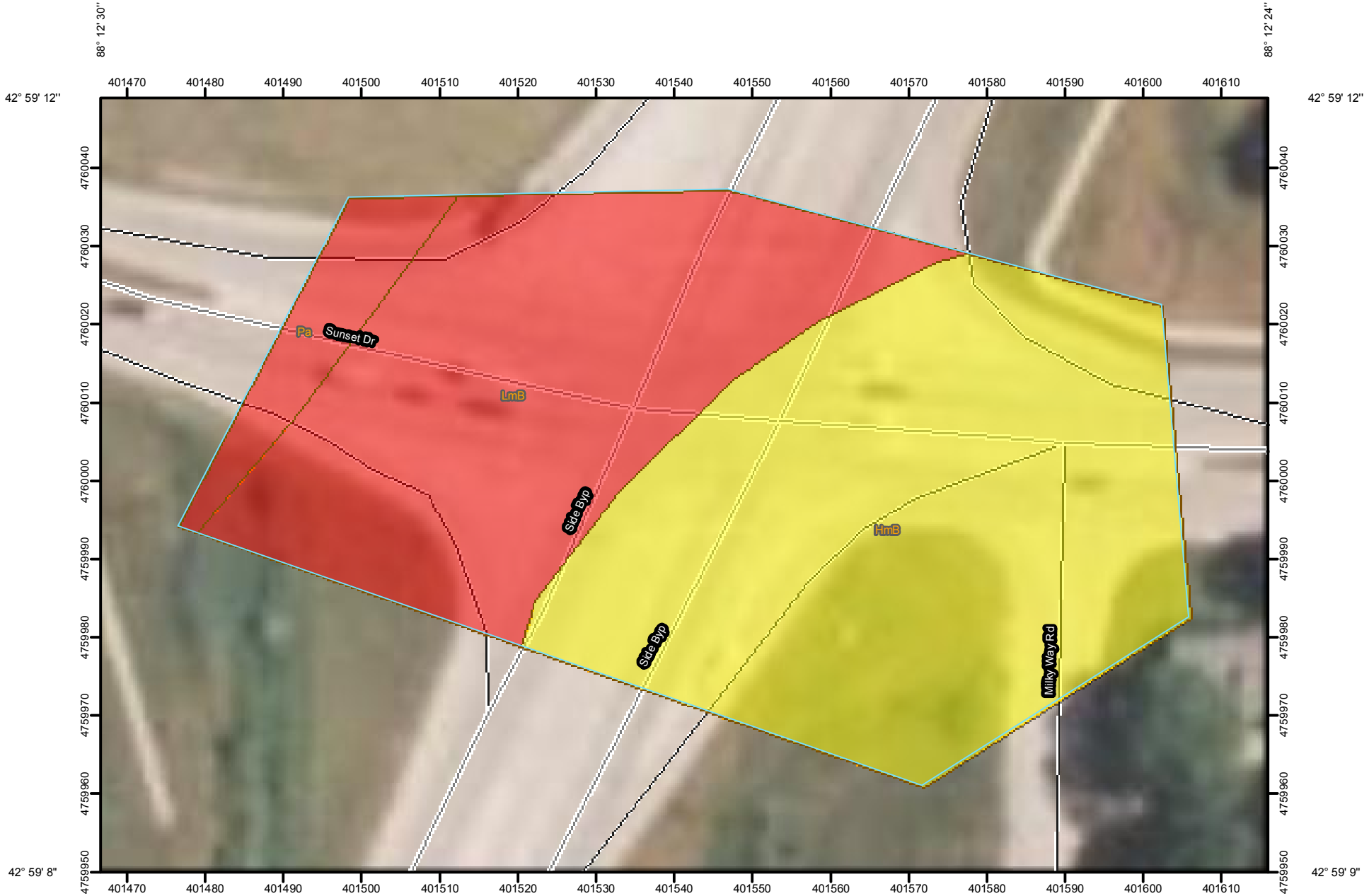
Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.

Corrosion of Steel—Milwaukee and Waukesha Counties, Wisconsin
(Milky Way Rd)



Map Scale: 1:708 if printed on A size (8.5" x 11") sheet.

N

Meters
0 5 10 20 30

Feet
0 35 70 140 210

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Units

Soil Ratings
- High
- Moderate
- Low
- Not rated or not available

Political Features
- Cities

Water Features
- Oceans
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:708 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:15,840.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 16N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Milwaukee and Waukesha Counties, Wisconsin
Survey Area Data: Version 4, May 26, 2009

Date(s) aerial images were photographed: 6/16/2005

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Corrosion of Steel

Corrosion of Steel— Summary by Map Unit — Milwaukee and Waukesha Counties, Wisconsin				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
HmB	Hochheim loam, 2 to 6 percent slopes	Moderate	0.9	55.0%
LmB	Lamartine silt loam, 1 to 4 percent slopes	High	0.7	39.5%
Pa	Palms muck	High	0.1	5.5%
Totals for Area of Interest			**1.7**	**100.0%**

Description

"Risk of corrosion" pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the steel in installations that are entirely within one kind of soil or within one soil layer.

The risk of corrosion is expressed as "low," "moderate," or "high."

Rating Options

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie.

The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.


88° 14' 51"
88° 14' 30"
43° 2' 0"
398400
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398750
398800
4765250
4765200
4765150
4765100
4765050
4765000
43° 1' 50"
88° 14' 50"
HmC2
HmB
Lu
Ph
KlA
HmC2
HmB
Northview Rd
HmD2
Lu
Irving Pl
Delafield St
HmC2
Aldoro Dr
Map Scale: 1:2,200 if printed on A size (8.5" x 11") sheet.
N
Meters
0
30
60
120
180
Feet
0
100
200
400
600

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Units

Soil Ratings
- High
- Moderate
- Low
- Not rated or not available

Political Features
- Cities

Water Features
- Oceans
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:2,200 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:15,840.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 16N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Milwaukee and Waukesha Counties, Wisconsin
Survey Area Data: Version 4, May 26, 2009

Date(s) aerial images were photographed: 6/16/2005

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Corrosion of Steel

Corrosion of Steel— Summary by Map Unit — Milwaukee and Waukesha Counties, Wisconsin				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
HmB	Hochheim loam, 2 to 6 percent slopes	Moderate	4.4	24.2%
HmC2	Hochheim loam, 6 to 12 percent slopes, eroded	Moderate	2.8	15.3%
HmD2	Hochheim loam, 12 to 20 percent slopes, eroded	Moderate	0.4	2.1%
KlA	Kendall silt loam, 1 to 3 percent slopes	High	1.5	8.0%
Lu	Loamy land	High	7.6	41.7%
Ph	Pella silt loam	High	1.6	8.5%
Totals for Area of Interest			**18.2**	**100.0%**

Description

"Risk of corrosion" pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the steel in installations that are entirely within one kind of soil or within one soil layer.

The risk of corrosion is expressed as "low," "moderate," or "high."

Rating Options

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie.

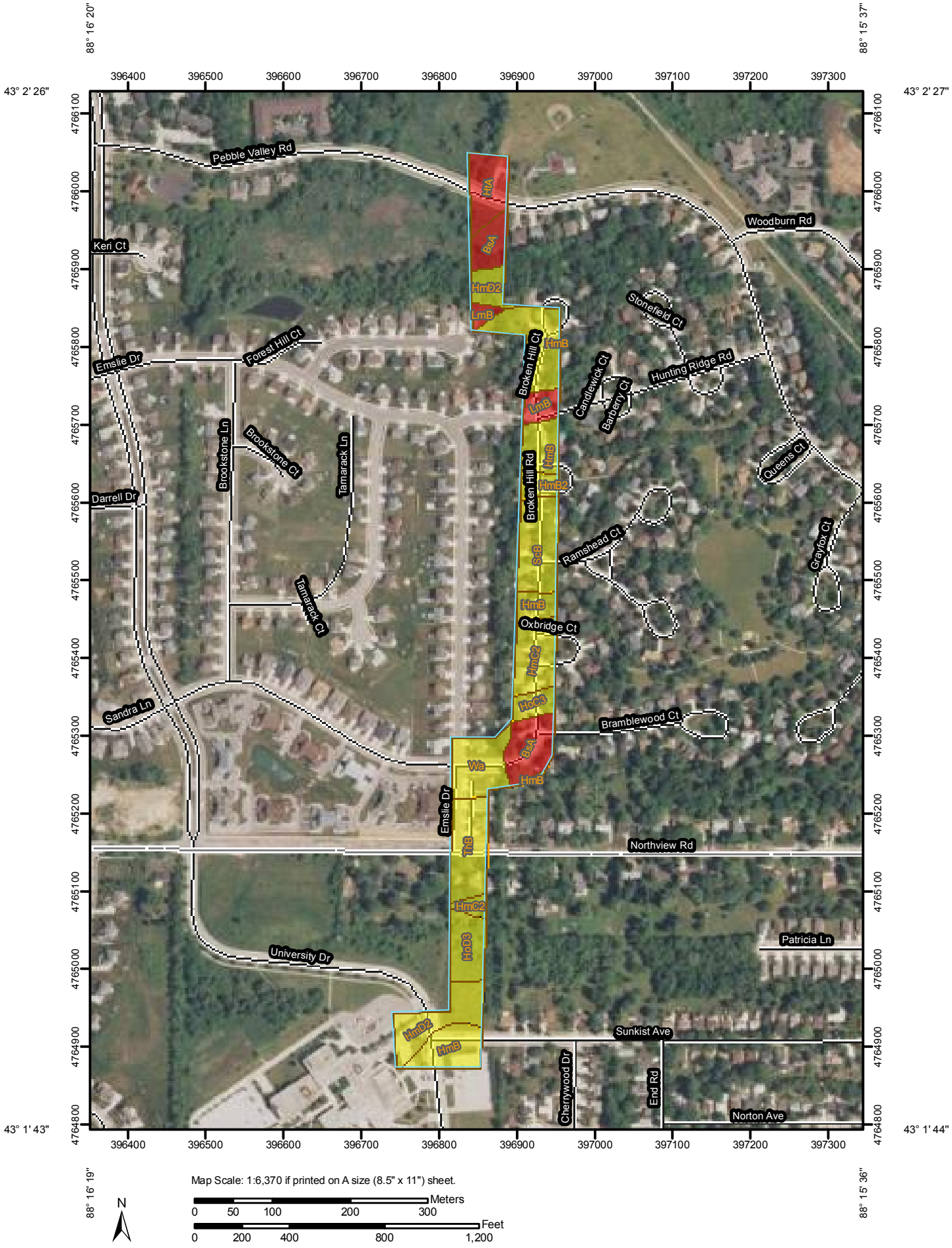
The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.


88° 16' 20"
88° 15' 37"
43° 2' 26"
43° 2' 27"
43° 1' 43"
43° 1' 44"
88° 16' 19"
88° 15' 36"
396400
396500
396600
396700
396800
396900
397000
397100
397200
397300
4766100
4766000
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4765700
4765600
4765500
4765400
4765300
4765200
4765100
4765000
4764900
4764800
Pebble Valley Rd
Woodburn Rd
Keri Ct
Stonefield Ct
Forest Hill Ct
Emslie Dr
Broken Hill Ct
Candlewick Ct
Barberry Ct
Hunting Ridge Rd
Brookstone Ln
Brookstone Ct
Tamarack Ln
Broken Hill Rd
Queens Ct
Darrell Dr
Ramshead Ct
Grayfox Ct
Tamarack Ct
Oxbridge Ct
Sandra Ln
Bramblewood Ct
Emslie Dr
Northview Rd
University Dr
Patricia Ln
Sunkist Ave
Cherrywood Dr
End Rd
Norton Ave
HtA
BsA
HmD2
LmB
HmB
HmB2
ScB
HmC2
HoD3
Wa
TnB
HmD2
HmB
Map Scale: 1:6,370 if printed on A size (8.5" x 11") sheet.
N
Meters
0 50 100 200 300
Feet
0 200 400 800 1,200

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Units

Soil Ratings
- High
- Moderate
- Low
- Not rated or not available

Political Features
- Cities

Water Features
- Oceans
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:6,370 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:15,840.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 16N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Milwaukee and Waukesha Counties, Wisconsin
Survey Area Data: Version 4, May 26, 2009

Date(s) aerial images were photographed: 6/6/2005

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Corrosion of Steel

Corrosion of Steel— Summary by Map Unit — Milwaukee and Waukesha Counties, Wisconsin				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
BsA	Brookston silt loam, 0 to 3 percent slopes	High	1.8	10.5%
HmB	Hochheim loam, 2 to 6 percent slopes	Moderate	4.0	23.6%
HmB2	Hochheim loam, 2 to 6 percent slopes, eroded	Moderate	0.4	2.3%
HmC2	Hochheim loam, 6 to 12 percent slopes, eroded	Moderate	1.4	8.3%
HmD2	Hochheim loam, 12 to 20 percent slopes, eroded	Moderate	1.9	11.2%
HoC3	Hochheim soils, 6 to 12 percent slopes, severely eroded	Moderate	0.4	2.6%
HoD3	Hochheim soils, 12 to 20 percent slopes, severely eroded	Moderate	0.9	5.6%
HtA	Houghton muck, 0 to 2 percent slopes	High	1.1	6.4%
LmB	Lamartine silt loam, 1 to 4 percent slopes	High	0.6	3.9%
ScB	St. Charles silt loam, 2 to 6 percent slopes	Moderate	1.5	8.9%
ThB	Theresa silt loam, 2 to 6 percent slopes	Moderate	1.5	8.8%
Wa	Wallkill silt loam	Moderate	1.3	7.9%
Totals for Area of Interest			**16.8**	**100.0%**

Description

"Risk of corrosion" pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the steel in installations that are entirely within one kind of soil or within one soil layer.

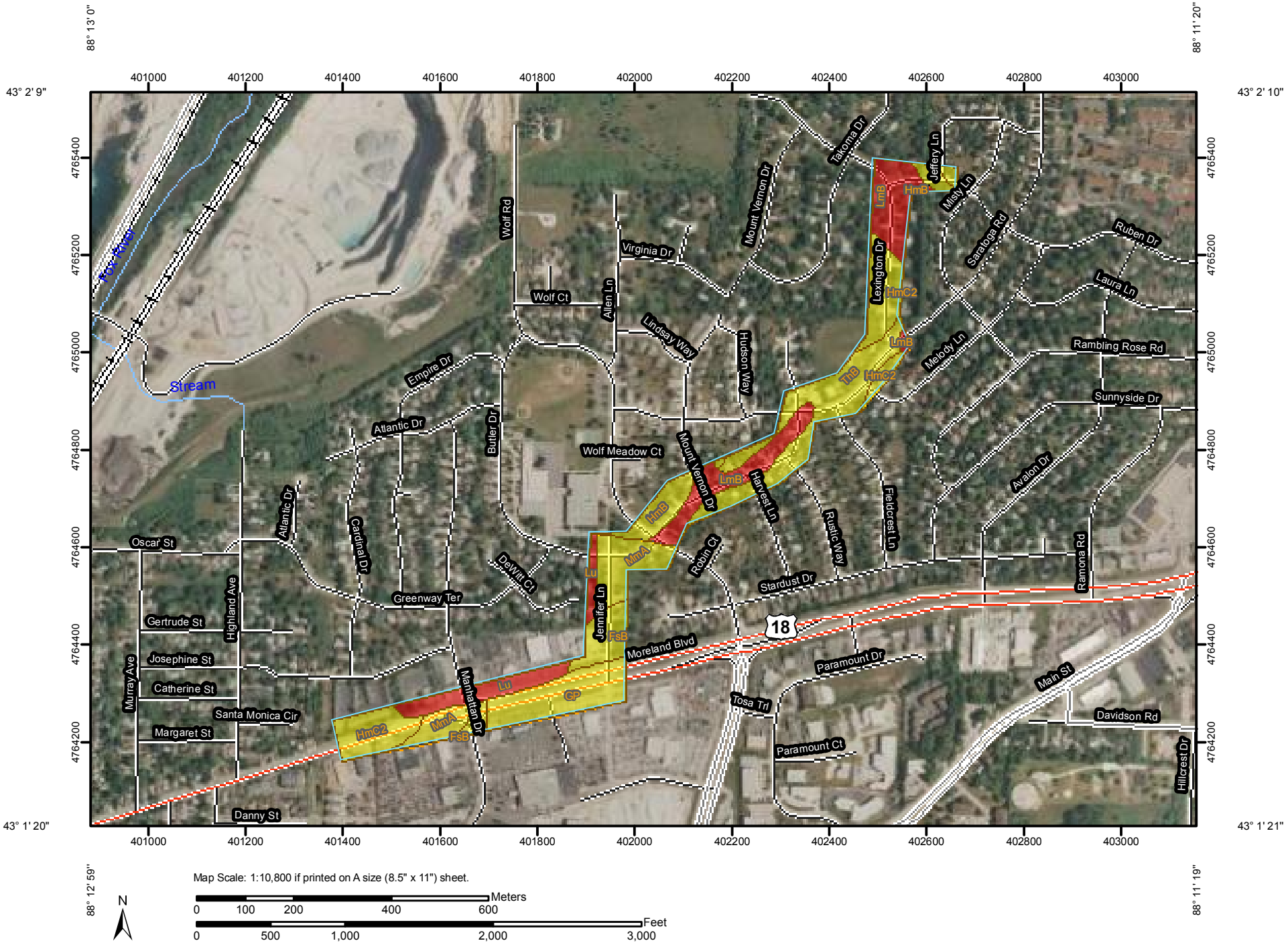
The risk of corrosion is expressed as "low," "moderate," or "high."

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher



Map Scale: 1:10,800 if printed on A size (8.5" x 11") sheet.

N

Meters
0 100 200 400 600

Feet
0 500 1,000 2,000 3,000

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Units

Soil Ratings
- High
- Moderate
- Low
- Not rated or not available

Political Features
- Cities

Water Features
- Oceans
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:10,800 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:15,840.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 16N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Milwaukee and Waukesha Counties, Wisconsin
Survey Area Data: Version 4, May 26, 2009

Date(s) aerial images were photographed: 6/16/2005

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Corrosion of Steel

Corrosion of Steel— Summary by Map Unit — Milwaukee and Waukesha Counties, Wisconsin				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
FsB	Fox silt loam, 2 to 6 percent slopes	Moderate	3.0	6.8%
GP	Gravel pit	Moderate	5.5	12.6%
HmB	Hochheim loam, 2 to 6 percent slopes	Moderate	2.9	6.5%
HmC2	Hochheim loam, 6 to 12 percent slopes, eroded	Moderate	7.3	16.6%
LmB	Lamartine silt loam, 1 to 4 percent slopes	High	8.1	18.4%
Lu	Loamy land	High	3.7	8.3%
MmA	Matherton silt loam, 1 to 3 percent slopes	Moderate	5.3	12.1%
ThB	Theresa silt loam, 2 to 6 percent slopes	Moderate	8.3	18.8%
Totals for Area of Interest			**44.1**	**100.0%**

Description

"Risk of corrosion" pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the steel in installations that are entirely within one kind of soil or within one soil layer.

The risk of corrosion is expressed as "low," "moderate," or "high."

Rating Options

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie.

The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.


88° 12' 4"
88° 11' 14"
42° 59' 51"
42° 59' 52"
42° 59' 27"
42° 59' 28"
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Penhurst Way
Brunner Ct
Somerset Ct
Wexford Ct
Wexford Ln
Longbow Ct
Crossbow Ct
Racine Ave
Guthrie Rd
Blackhawk Trl
Inverness Dr
LDF
GeB
FoB
HtA
MmA
LmB
HmB2
MmA
FsB
MoB
MgA
Ph
BsA
W
FsB
LmB
HmB2
Map Scale: 1:5,360 if printed on A size (8.5" x 11") sheet.
N
Meters
0 50 100 200 300
Feet
0 250 500 1,000 1,500

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Units

Soil Ratings
- High
- Moderate
- Low
- Not rated or not available

Political Features
- Cities

Water Features
- Oceans
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:5,360 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:15,840.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 16N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Milwaukee and Waukesha Counties, Wisconsin
Survey Area Data: Version 4, May 26, 2009

Date(s) aerial images were photographed: 6/16/2005

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Corrosion of Steel

Corrosion of Steel— Summary by Map Unit — Milwaukee and Waukesha Counties, Wisconsin				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
BsA	Brookston silt loam, 0 to 3 percent slopes	High	0.8	2.9%
CeB	Casco loam, 2 to 6 percent slopes	Moderate	0.4	1.6%
FoB	Fox loam, 2 to 6 percent slopes	Moderate	4.7	17.9%
FsB	Fox silt loam, 2 to 6 percent slopes	Moderate	1.0	3.9%
HmB2	Hochheim loam, 2 to 6 percent slopes, eroded	Moderate	6.3	24.0%
HmC2	Hochheim loam, 6 to 12 percent slopes, eroded	Moderate	0.1	0.4%
HtA	Houghton muck, 0 to 2 percent slopes	High	1.6	6.1%
LDF	Landfill		0.1	0.5%
LmB	Lamartine silt loam, 1 to 4 percent slopes	High	4.5	17.0%
MgA	Martinton silt loam, 1 to 3 percent slopes	High	1.8	6.9%
MmA	Matherton silt loam, 1 to 3 percent slopes	Moderate	2.8	10.7%
MoB	Mayville silt loam, 2 to 6 percent slopes	Moderate	1.4	5.2%
Ph	Pella silt loam	High	0.5	1.8%
W	Water		0.3	1.1%
Totals for Area of Interest			**26.5**	**100.0%**

Description

"Risk of corrosion" pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the steel in installations that are entirely within one kind of soil or within one soil layer.

The risk of corrosion is expressed as "low," "moderate," or "high."

Rating Options

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie.

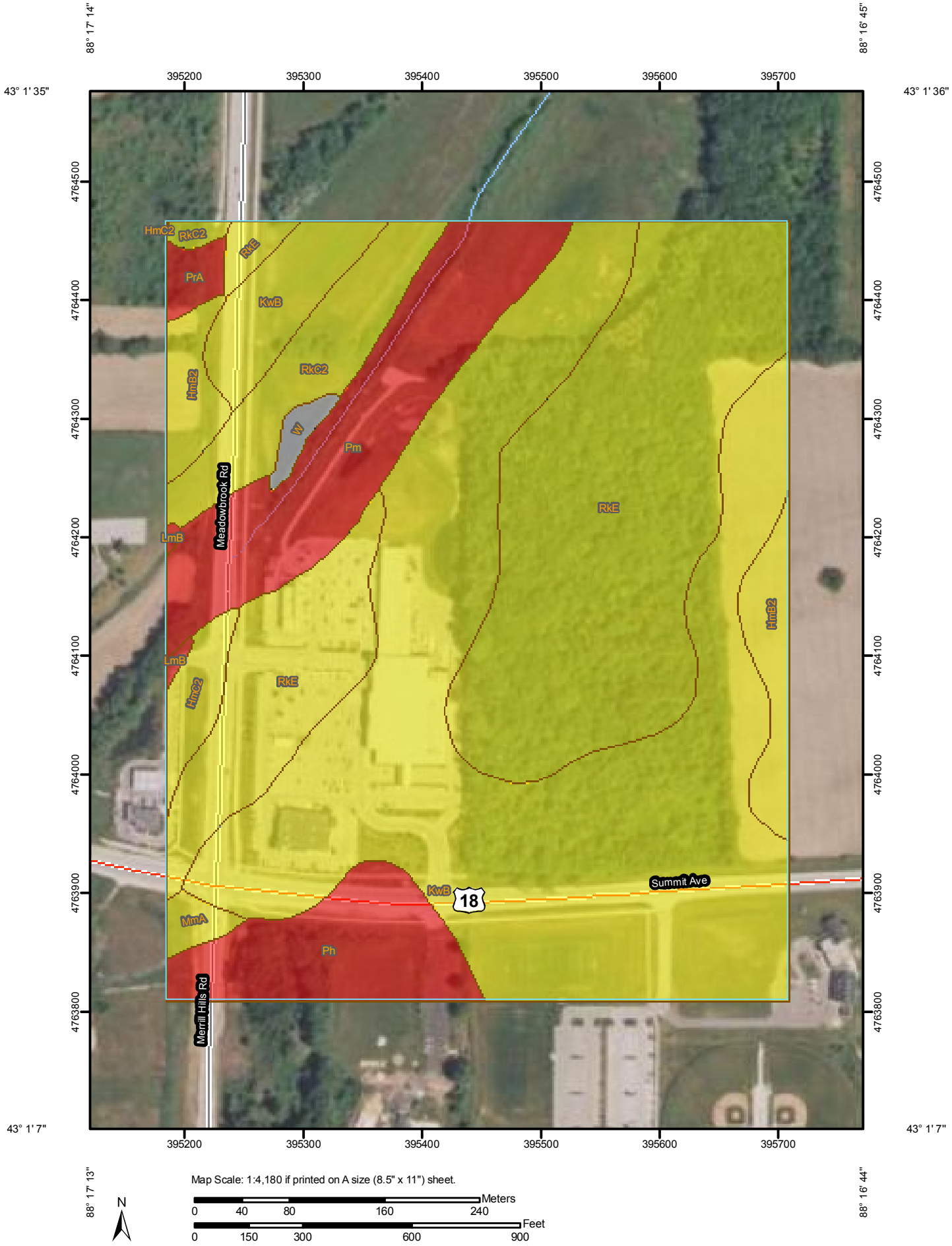
The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.



Map Scale: 1:4,180 if printed on A size (8.5" x 11") sheet.

N

Meters
0 40 80 160 240

Feet
0 150 300 600 900

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Units

Soil Ratings

- High
- Moderate
- Low
- Not rated or not available

Political Features

- Cities

Water Features

- Oceans
- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:4,180 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:15,840.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 16N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Milwaukee and Waukesha Counties, Wisconsin
Survey Area Data: Version 4, May 26, 2009

Date(s) aerial images were photographed: 6/6/2005

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Corrosion of Steel

Corrosion of Steel— Summary by Map Unit — Milwaukee and Waukesha Counties, Wisconsin				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
HmB2	Hochheim loam, 2 to 6 percent slopes, eroded	Moderate	3.2	3.7%
HmC2	Hochheim loam, 6 to 12 percent slopes, eroded	Moderate	1.2	1.4%
KwB	Knowles silt loam, 2 to 6 percent slopes	Moderate	36.1	42.5%
LmB	Lamartine silt loam, 1 to 4 percent slopes	High	0.2	0.2%
MmA	Matherton silt loam, 1 to 3 percent slopes	Moderate	0.5	0.6%
Ph	Pella silt loam	High	4.9	5.7%
Pm	Pella silt loam, moderately shallow variant	High	8.3	9.8%
PrA	Pistakee silt loam, 1 to 3 percent slopes	High	0.6	0.8%
RkC2	Ritchey silt loam, 6 to 12 percent slopes, eroded	Moderate	4.1	4.8%
RkE	Ritchey silt loam, 12 to 30 percent slopes	Moderate	25.4	29.9%
W	Water		0.4	0.5%
Totals for Area of Interest			**85.0**	**100.0%**

Description

"Risk of corrosion" pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the steel in installations that are entirely within one kind of soil or within one soil layer.

The risk of corrosion is expressed as "low," "moderate," or "high."

Rating Options

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie.

The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

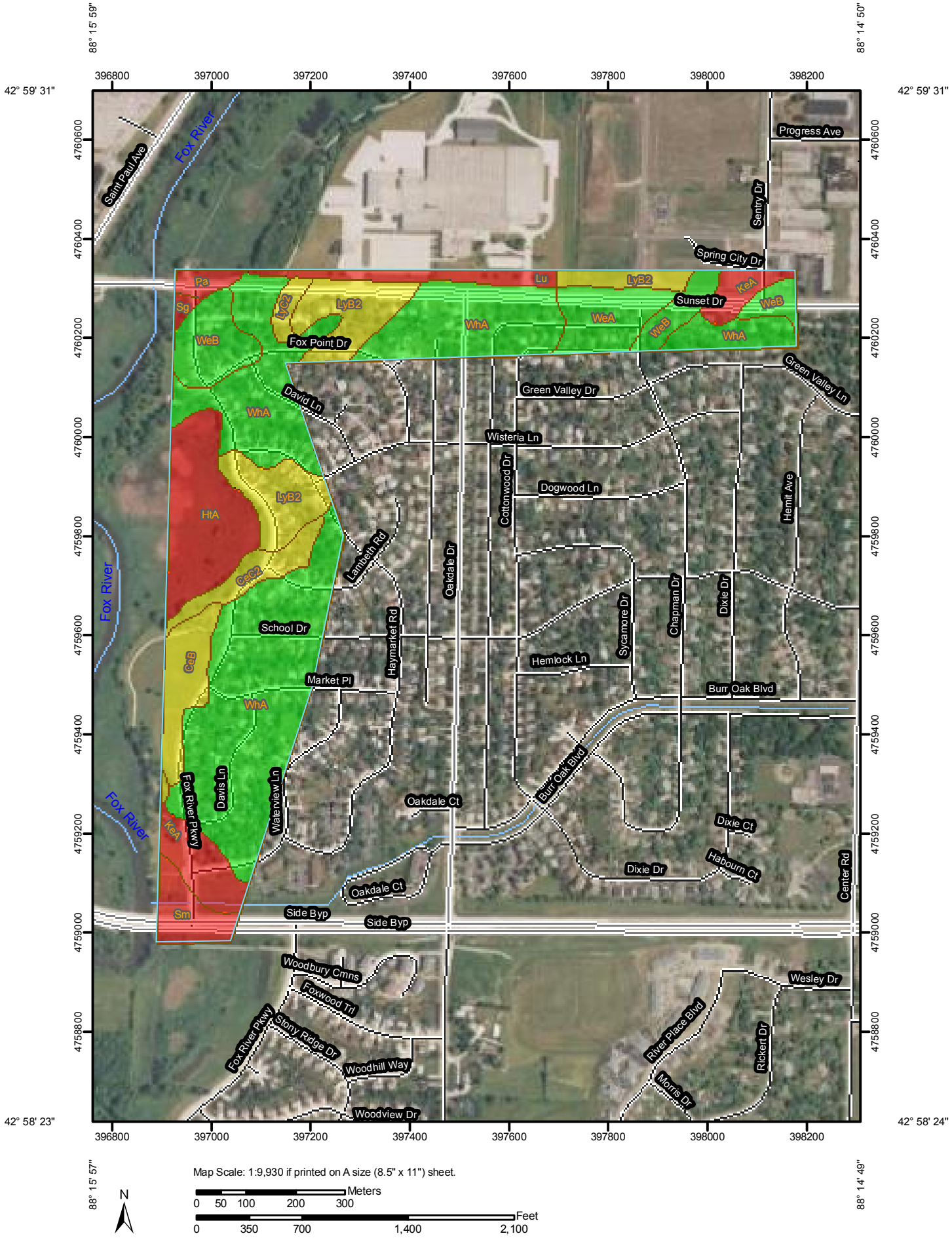
Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.

Corrosion of Steel—Milwaukee and Waukesha Counties, Wisconsin
(Sunset Dr)



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Units

Soil Ratings
- High
- Moderate
- Low
- Not rated or not available

Political Features
- Cities

Water Features
- Oceans
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:9,930 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:15,840.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 16N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Milwaukee and Waukesha Counties, Wisconsin
Survey Area Data: Version 4, May 26, 2009

Date(s) aerial images were photographed: 6/6/2005; 6/16/2005

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Corrosion of Steel

Corrosion of Steel— Summary by Map Unit — Milwaukee and Waukesha Counties, Wisconsin				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
CeB	Casco loam, 2 to 6 percent slopes	Moderate	5.7	4.3%
CeC2	Casco loam, 6 to 12 percent slopes, eroded	Moderate	4.1	3.1%
HtA	Houghton muck, 0 to 2 percent slopes	High	12.3	9.3%
KeA	Kane silt loam, 1 to 3 percent slopes	High	7.2	5.5%
Lu	Loamy land	High	3.3	2.5%
LyB2	Lorenzo loam, 2 to 6 percent slopes, eroded	Moderate	14.9	11.3%
LyC2	Lorenzo loam, 6 to 12 percent slopes, eroded	Moderate	1.4	1.1%
Pa	Palms muck	High	1.4	1.1%
Sg	Sawmill silt loam, calcareous variant	High	0.5	0.4%
Sm	Sebewa silt loam	High	4.1	3.1%
WeA	Warsaw loam, 0 to 2 percent slopes	Low	6.1	4.6%
WeB	Warsaw loam, 2 to 6 percent slopes	Low	10.1	7.7%
WhA	Warsaw silt loam, 0 to 2 percent slopes	Low	60.8	46.1%
Totals for Area of Interest			**131.9**	**100.0%**

Description

"Risk of corrosion" pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the steel in installations that are entirely within one kind of soil or within one soil layer.

The risk of corrosion is expressed as "low," "moderate," or "high."

Rating Options

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie.

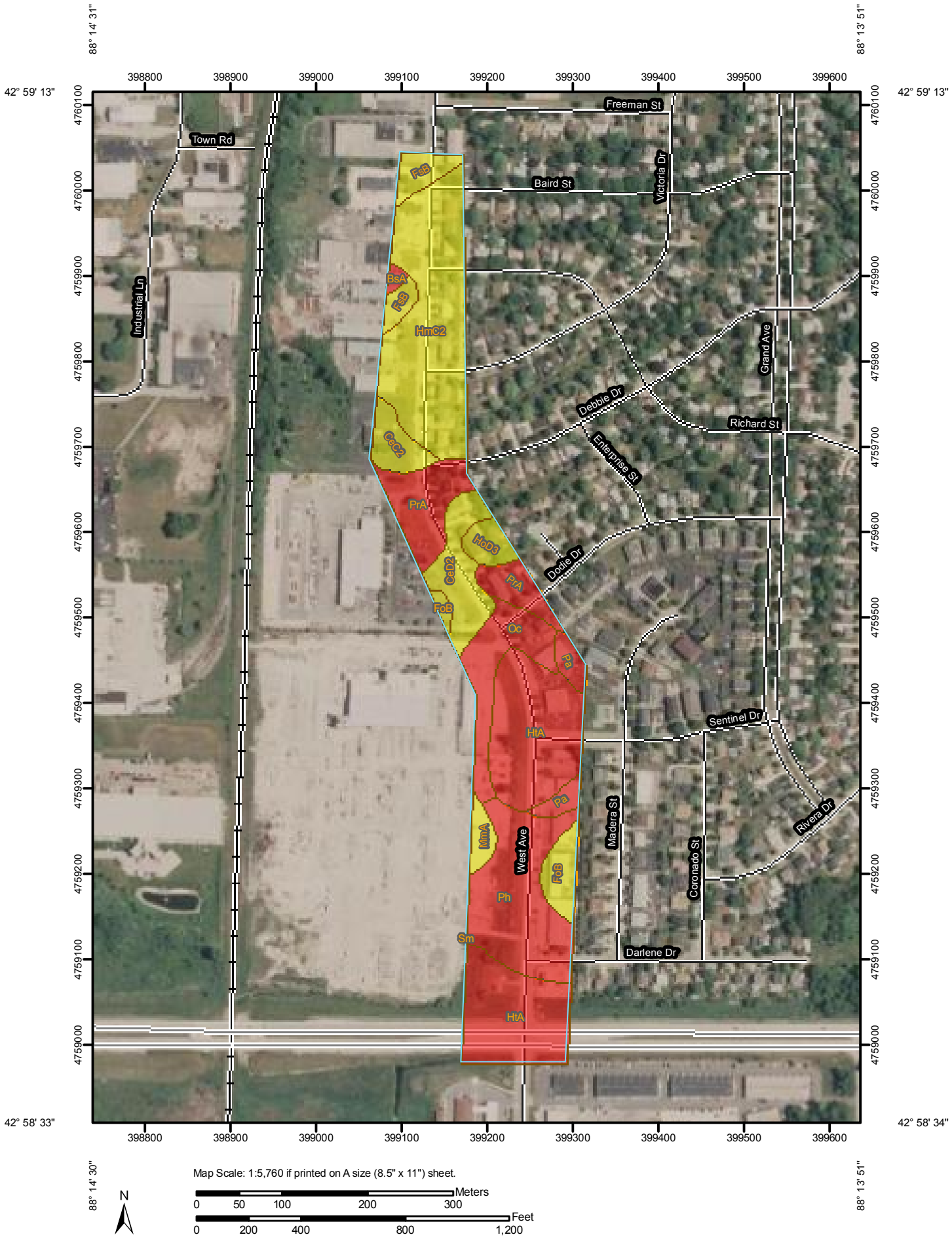
The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.


88° 14' 31"
88° 13' 51"
42° 59' 13"
42° 58' 33"
88° 14' 30"
398800
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399000
399100
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399400
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4760100
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4759500
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4759300
4759200
4759100
4759000
Freeman St
Town Rd
Baird St
Victoria Dr
Industrial Ln
Grand Ave
Debbie Dr
Richard St
Enterprise St
Dodie Dr
Sentinel Dr
Madera St
Rivera Dr
Coronado St
Darlene Dr
West Ave
FsB
BsA
FsB
HmC2
CeC2
PrA
HoD3
CeD2
FoB
PrA
Oc
Pa
HtA
Pa
MnA
FoB
Ph
Sm
HtA
Map Scale: 1:5,760 if printed on A size (8.5" x 11") sheet.
N
Meters
0 50 100 200 300
Feet
0 200 400 800 1,200

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Units

Soil Ratings
- High
- Moderate
- Low
- Not rated or not available

Political Features
- Cities

Water Features
- Oceans
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:5,760 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:15,840.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 16N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Milwaukee and Waukesha Counties, Wisconsin
Survey Area Data: Version 4, May 26, 2009

Date(s) aerial images were photographed: 6/16/2005

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Corrosion of Steel

Corrosion of Steel— Summary by Map Unit — Milwaukee and Waukesha Counties, Wisconsin				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
BsA	Brookston silt loam, 0 to 3 percent slopes	High	0.1	0.4%
CeC2	Casco loam, 6 to 12 percent slopes, eroded	Moderate	0.9	3.1%
CeD2	Casco loam, 12 to 20 percent slopes, eroded	Moderate	1.9	6.2%
FoB	Fox loam, 2 to 6 percent slopes	Moderate	1.0	3.4%
FsB	Fox silt loam, 2 to 6 percent slopes	Moderate	1.0	3.4%
HmC2	Hochheim loam, 6 to 12 percent slopes, eroded	Moderate	6.4	21.2%
HoD3	Hochheim soils, 12 to 20 percent slopes, severely eroded	Moderate	0.6	2.1%
HtA	Houghton muck, 0 to 2 percent slopes	High	7.4	24.7%
MmA	Matherton silt loam, 1 to 3 percent slopes	Moderate	0.5	1.6%
Oc	Ogden muck	High	2.2	7.3%
Pa	Palms muck	High	0.8	2.6%
Ph	Pella silt loam	High	4.4	14.6%
PrA	Pistakee silt loam, 1 to 3 percent slopes	High	2.8	9.3%
Sm	Sebewa silt loam	High	0.0	0.0%
Totals for Area of Interest			**30.1**	**100.0%**

Description

"Risk of corrosion" pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the steel in installations that are entirely within one kind of soil or within one soil layer.

The risk of corrosion is expressed as "low," "moderate," or "high."

Rating Options

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie.

The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.


88° 15' 17"
88° 15' 0"
43° 0' 38"
43° 0' 30"
397760
397800
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397960
398000
398040
398080
398120
4762760
4762720
4762680
4762640
4762600
4762560
4762520
Erin Ln
American Ave
Joellen Dr
Stewart Hill Dr
Moreland Blvd
LmB
Ph
Cambridge Ave
ThB
Dopp St
Lu
Pa
Erin Ln
Moreland Blvd
Lindbergh Ave
Map Scale: 1:1,820 if printed on A size (8.5" x 11") sheet.
N
Meters
0 25 50 100 150
Feet
0 100 200 400 600
88° 15' 16"
88° 15' 0"

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Units

Soil Ratings
- High
- Moderate
- Low
- Not rated or not available

Political Features
- Cities

Water Features
- Oceans
- Streams and Canals

Transportation
- Rails
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- Local Roads

MAP INFORMATION

Map Scale: 1:1,820 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:15,840.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 16N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Milwaukee and Waukesha Counties, Wisconsin
Survey Area Data: Version 4, May 26, 2009

Date(s) aerial images were photographed: 6/6/2005; 6/16/2005

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Corrosion of Steel

Corrosion of Steel— Summary by Map Unit — Milwaukee and Waukesha Counties, Wisconsin				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
LmB	Lamartine silt loam, 1 to 4 percent slopes	High	0.3	4.8%
Lu	Loamy land	High	0.7	11.9%
Pa	Palms muck	High	0.1	1.2%
Ph	Pella silt loam	High	1.2	22.7%
ThB	Theresa silt loam, 2 to 6 percent slopes	Moderate	3.3	59.3%
Totals for Area of Interest			**5.5**	**100.0%**

Description

"Risk of corrosion" pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the steel in installations that are entirely within one kind of soil or within one soil layer.

The risk of corrosion is expressed as "low," "moderate," or "high."

Rating Options

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie.

The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.